HARPER'S WEEKLY.

A JOURNAL OF CIVILIZATION.

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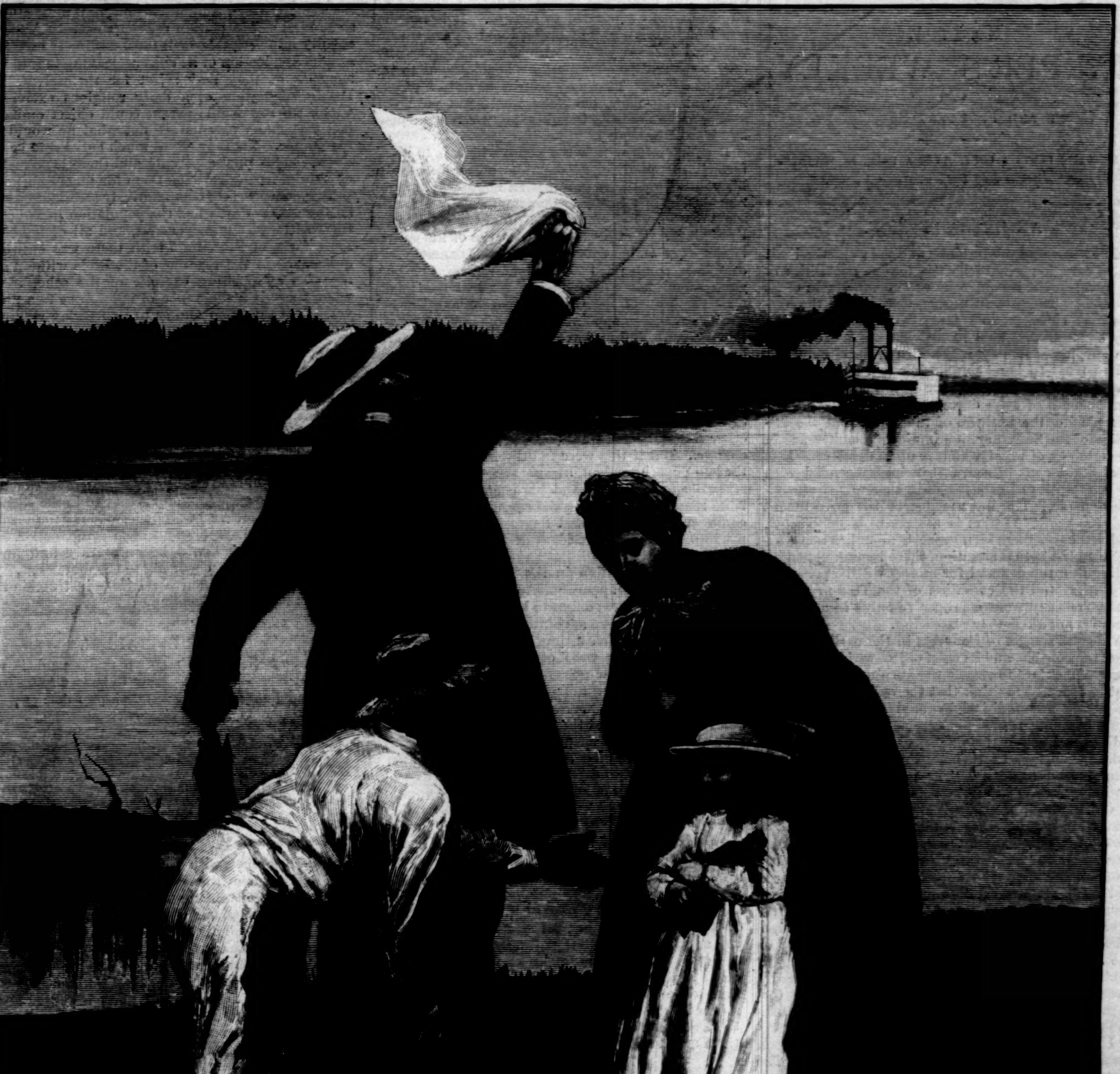

A COAST PLANTER HAILING A NEW ORLEANS STEAMER.—Drawn by E. W. Kemble.—[See Page 607.]

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The summer numbers of HARPER'S YOUNG PEOPLE *have an out-door holiday character in keeping with the season. The special features of the current number are the serial story, "Dorymates," by* KIRK MUNROE; *"A Summer Experiment," a story by* AGNES CARR SAGE; *a fairy tale by* CLARENCE WALWORTH MCILVAINE; *the first of two articles on "Bait Fishing," by* J. HARRINGTON KEENE; *and "Sea-Weed," a poem by* JOHN H. JEWETT, *illustrated by* CULMER BARNES.

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HARPER'S WEEKLY,

WITH

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AN EXTRA SESSION.

THE wisdom of the fundamental rule that the limit of taxation should be the honest necessities of the government is shown by the consequences of its violation. There is an uneasy feeling that the surplus may cause trouble, and that an extra session may be found desirable to provide against disaster. The surplus is money withdrawn from circulation, and to trust to bond purchasing to reduce it is to depend upon the Treasury for business relief. The consequences of such dependence are obvious. Besides placing the business of the country at the discretion of the Secretary, it stimulates a confidence in the certainty of relief which is often delusive. It is an abandonment of sound principles attended with the possibilities of catastrophe which would precipitate a panic. The interference of the government with the money market is always to be deprecated. And although there is no special apprehension arising from the actual situation, there is undoubtedly a feeling that the demand for money will be presently very large, and the condition of the Treasury, even if the Treasury were a proper resource in an emergency, is not altogether reassuring.

An extra session of Congress in the early autumn is not improbable, and its chief object will be to devise a proper measure to reduce the surplus. The President has seemed to think that the reduction could be adequately accomplished by buying bonds, but the result has not justified his expectation. The simple and natural way of reduction is to equalize receipts and expenditures by revising the tariff and moderating exorbitant duties. The course of events since the inauguration has not demonstrated that the success of the high protective policy at the election has resulted in industrial contentment. The most serious strike of recent years in the works of one of the most conspicuous advocates of protection is a significant commentary upon the results of a war tariff in peace, and upon the general doctrine that high protection secures general employment and high wages. Moreover, the effort to replace the strikers with foreign laborers will open the eyes of American workmen to the merits of a system which, while professing to protect them against the low wages of foreigners by excluding the product of their work, admits the foreigners themselves to compete with American workmen.

Unfortunately the question will not be treated upon its merits, but with a view to party advantage. The Republicans cannot afford to lose the support of great moneyed interests, and those interests are concerned solely with their own profit. No highly protected business will willingly surrender its degree of protection, and the Republican scheme must be an ingenious juggle and evasion and shift to appear to do something while preserving the statu quo. It is the precise situation in which the temptation simply to spend the surplus under the patriotic pretence of a strong navy, of gratitude to the soldiers, and of costly public works will be very strong. There will be Democratic protectionists enough to support the Republican action to make it quite sure that there will be no effective reduction of the tariff, and consequently no such equalization of receipts and expenditures as would really relieve exorbitant taxation. It is an extraordinary political situation when political parties are determined by tradition and not by actual issues, and an extra session to provide financial relief, and the policy by which such relief is likely to be sought, are striking demonstrations of the disturbing and corrupting influence of a surplus, and the danger of the system which produces it.

A SEARCHING EXAMINATION.

THE New York *Tribune* remarks that the civil service reformers are now being subjected to a searching but unconscious competitive examination. The tests, it says, are the appointments of President HARRISON, and the question which daily "floors" a very large proportion of the examined is this: "Have President HARRISON's appointments as a whole been worthy or unworthy?" This is an artless attempt at subterfuge, which will not aid the desperate attempt to show that this is a reform administration. The question upon which, in the *Tribune's* words, "the intelligent public are the judges" is not that which the *Tribune* states. It is this: "Are President HARRISON's removals made upon the principles which he publicly declared should determine them, namely, that only the interests of the public service should suggest removals from office?" This is the question which "the intelligent public" is asking, and which no honest man is puzzled to answer. It is not disposed of by saying that professional reformers are wretched little nobodies, who are enraged because they were not "recognized" by appointment to important offices. That may be true or untrue of professional reformers, but "the intelligent public" is asking and answering the question, "What is true of President HARRISON?"

It is not reform, it is the abuse which is to be reformed, to remove a good public officer because of his political opinions, and it is an abuse which is not remedied by appointing a competent successor for the same reason. Reform demands that the good officer be retained. To turn him out because of his politics is the very thing which President HARRISON as a candidate condemned. It is not reform, nor good government, nor common-sense, for instance, to dismiss the head of the Coast Survey because he is a Democrat, and to appoint a successor because he is a Republican. Politics have no more concern with the fitness of a man to be Superintendent of the Coast Survey than with his fitness to be Bishop of New York. If the late Superintendent were for any reason unfit, and his successor were more competent, that, and not the fact that one is a Democrat and the other a Republican, would be a proper reason for the change. But if this were not the case, the fact that the late Superintendent, like his successor, is a man of scientific qualification and high personal character is no reason whatever for the change, which then becomes a conspicuous and flagrant violation of the principle which the President declared ought to govern such cases.

The crucial question in the President's action is not whether an appointment is a good one, but whether the removal ought to have been made. The thousand postmasters appointed every week may be honest men, and after a time they may become good officers. But why were equally honest men, and good and experienced officers, displaced to make room for them? This is the question. The only answer is that they were Democrats. But President HARRISON has expressly said that this is not a valid reason, and no man or newspaper which pretends to favor reform will assert that it is. The general course of the HARRISON administration in its treatment of the civil service cannot be explained except upon the doctrine of Mr. MARCY and Tammany Hall and Senators INGALLS and BLAIR, that the public service is the proper spoils of the successful party. The "intelligent public," which, we agree with the *Tribune*, is holding a very severe examination, knows that the Republican party solemnly repudiated this doctrine, and pledged itself to disregard it, and that the President distinctly disclaimed it as a principle of executive action. The "intelligent public" is not diverted from the point by the question whether the President's appointments are worthy. It knows the question to be dishonest, because, whether the appointments in themselves are worthy or unworthy, upon the President's own principle the larger number of them ought not to have been made.

RELIGION IN THE PUBLIC SCHOOLS.

Public Opinion publishes some important papers upon the question of religion in the public schools. Among them is one from Cardinal GIBBONS, and one from the Rev. Dr. HILL, an eminent Unitarian divine, and ex-President of Harvard University. These gentlemen, at what may be regarded as the extreme right and left of the Christian line, both agree that religious training in the schools is necessary. The Roman prelate says that religious and secular education cannot be safely separated, and that Sunday-schools are insufficient to supply the religious wants of children. The Cardinal holds that the union of the two is easily accomplished in denominational schools, but that it would be very difficult to arrange the matter satisfactorily to all in the public schools.

Dr. HILL treats the question more definitely. Religious instruction, he thinks, is demanded as a political necessity. But it must not be given by text-books, lectures, or recitations. It must be given first by the selection of teachers of good character and good sense, then by careful selection of wholesome reading, and finally by a daily brief religious exercise of a kind to which no reasonable parent could object. The state, he says, does not assume to define Christianity nor to interpret the Scriptures. But it cannot admit that the instruction of a denominational school is a political equivalent for a public education. Least of all, he thinks, is this possible in a Roman denominational school, because not only does it teach a limited and distorted view of history, but a limitation of the right of private judgment, which unfits the pupil for unbiassed political decisions. This is, so far, undoubtedly true. But the only safe and acceptable treatment of the question proceeds upon the ground that as the state, as such, professes no religion, but permits the free exercise of all, and as the introduction of direct religious instruction in the schools cannot satisfy all parents, such instruction cannot be permitted. The course for the state is very simple. It must authorize sectarian instruction in the schools, which is impracticable, or it must attempt some kind of unsectarian religious exercise, which is equally impracticable, or it must decline to direct the religious education of its citizens, leaving that to such agencies as they may select for themselves. Dr. HILL's suggestion of a daily religious exercise to which no reasonable parent could object omits the fact that many parents are not what he would call reasonable. Yet they are as much entitled to be considered as reasonable parents, and there is no method of discriminating between them for school purposes.

This question is of comparatively recent discussion. In the earlier day, when the population of the country was largely homogeneous, and all of it held to some form of Protestant faith, there was entire acquiescence in the reading of the Bible without comment as an opening exercise of the school. But when there is a difference of opinion as to a proper version of the Bible and as to its free lay reading, a difficulty arises which a majority cannot wisely settle. The Israelite and the Roman Catholic hold views which are to be considered equally with those of other religious faiths. The one thing which is absolutely fixed in the American mind, however, is that the public money shall not be given for sectarian schools or other sectarian uses of any kind. If any parent decides that his religious faith shall be taught to his children at school, he must not expect that it shall be taught at the public expense. The education for which the state provides is limited to the elements of certain branches of knowledge. If the teachers are of good character and good sense, as Dr. HILL requires, the pupil will be constantly and unconsciously trained in obedience to the moral law. But the domain of distinctive religious instruction is beyond that of state education.

STATE SOCIALISM.

THE Nationalist Club, as we understand, is what Colonel HIGGINSON explains it to be in a letter to the *Evening Post* describing his own position:

> "There are a good many persons, I take it, who have reached just this point of conviction, namely, to hold that, if the government carries on the Post-office fairly well, as it certainly does, it may well undertake the telegraph also, as in England; that if it can conduct a bankrupt railroad through a receiver, it could also carry on a successful one; that if a city can supply its inhabitants with water, it might as well try the experiment of supplying them with gas. How far this tendency is to go, such persons do not undertake to say; and here they stop short of Mr. BELLAMY and his thorough supporters."

The Post-office, with its various financial functions, the public school, the water supply of cities, and a few other great conveniences are illustrations of what is called state socialism. Mr. SIDNEY WEBB, of London, in a recent pamphlet, mentions a very large number of such public or government services in London, and Mr. BELLAMY, in his *Looking Backward*, fancies the extension of the system to a degree which seems to us to threaten individual initiative and energy. The defects of organized capital for accomplishing certain results are obvious enough, but they would not be remedied merely by transferring them to another organization called government. In both cases the organization is of men, and the same fallible men that we know. The short-comings of government in the management of such business as is now confided to it are obvious, and before extending its functions in such directions, let us remedy those defects.

The private management of railroads, for instance, is in many ways open to correction. But its transfer to another body of managers, who were not personally interested in the business, would not necessarily improve the management. The first result of the government control of railroads would be an enormous increase of the civil service. But if the present system of the civil service is the chief source of the corruption in our politics, which every good citizen sees and deplores, what would be the public gain in immensely extending the system? If instead of the present number of places to be fought for under the spoils system at every election there were ten times as many, how much nearer honest politics and clean government should we be? If, as is unquestionably the fact, the present extent of patronage is a prolific source of public demoralization, how should we lessen the demoralization by enormously multiplying its causes? There is no great railroad in the country which is now managed upon so degrading a system, so fatal at once to self-respect and a really efficient service, as the national Post-office.

We do not say, of course, that postmasters, as a class, are inefficient and dishonest. But a body of officers whose tenure in a non-political service is determined by political considerations, and not by actual merit, will necessarily regard party advantage rather than the public welfare. To turn over the railroads to Mr. Wanamaker and Mr. Clarkson to be managed for the benefit of a political party would not be an improvement upon the present plan. To make the removal of experienced "hands," honest and satisfactory brakemen and conductors and accountants, and the whole necessary force of a road, dependent upon the success of a party at the polls—to dismiss a competent and tried engineer because he was a Republican, and to replace him by another because he was a Democrat—would be a change which no sensible man can possibly desire. Before we enlarge the functions of government and vastly extend the civil service let us establish it upon sensible principles, and guard it against the dangerous abuses of which long experience has made us fully aware. The benefits contemplated by the Nationalist Club would be bought much too dearly by an indefinite increase of party patronage and spoils.

SILENCING MR. ROOSEVELT.

Puck seems to think that Commissioner Roosevelt will find himself suddenly silenced by the Republican leaders if he continues to express his views of reform strongly and to enforce them firmly. But silencing is a process which requires at least two persons. Mr. Roosevelt is a Republican who has said nothing upon the subject which is not plainly stated by the Republican platform, and which has not been unreservedly approved by the Republican President. Those who do not agree with him fall short of the Republican declaration. Measured by the highest and most binding action of the party, Messrs. Ingalls, Quay, Wanamaker, Platt, Blair, and a host of the party papers are not so regularly Republican as Commissioner Roosevelt. He alone among conspicuous Republicans upholds the party standard upon this subject, and to silence him, if it were possible, would be to lower the standard in surrender.

The complete falsehood of the platform, however, so far as a very large part of the Republican party is concerned, is shown by such remarks as the following from the Binghamton *Republican*. Mr. Roosevelt, in accordance with the platform, had said that the examiners in the New York Custom-house should be "men of practical sagacity and absolute integrity, who were free from political bias, and would give Democrats and Republicans an equal chance in examinations and appointments." Upon this the *Republican* remarks:

> "If Commissioner Roosevelt keeps up that sort of talk much longer, there is danger that he will make somebody believe he means it. He is very much in the position of the frontiersman who aimed his gun to kill if it was a deer and miss if it was a calf. It is all right to make the mugwumps believe him, just as Cleveland did; but if he causes the working Republicans to put much faith in his pretensions, he may cause the administration to see that it has picked up the poker by the hot end, and something must be dropped."

In the same strain is the remark of another Republican paper, the Albany *Evening Journal*, in regard to the appointment of Professor Gould, of Harvard, to the Superintendency of the Coast Survey. The *Journal* admits frankly that for a purely scientific position the most eminent scientific fitness would not avail if the partisan views of the proposed officer were not those of the administration.

> "And if Professor A. B. Gould had been a thorough-going Harrison Republican last fall, he might have received the appointment; his fitness is beyond question. The suspicion spread, however, that he was affected by the mugwumpery that grows so rank and luxuriantly in the neighborhood of Cambridge; and in the absence of positive denials Gould's chances were dissipated. It was the Republican party that the people voted into power; and no mugwumps will be put on guard—not if Ben Harrison knows it."

This is unquestionably the general feeling of the Republican machine, and Mr. Roosevelt's courage and tenacity will show whether he, or Senators Ingalls and Blair and others, and the Binghamton *Republican* and Albany *Evening Journal* and others, really represent the party. If he could be silenced, the demonstration of the party contempt for its own pledges would be complete. It may be assumed that Mr. Roosevelt has political ambition, as he has large political experience. But it is a comical impeachment of his political sagacity to suppose him capable of being silenced by a machine which he knows perfectly well to be his deadliest enemy, which no silence or speech of his could possibly propitiate. It will "hit him every time." He has the advantage of it now, and, more than any Republican in the country, he is the most conspicuous representative of the best impulse of his party.

MR. PARNELL AND THE LONDON "TIMES."

Mr. Parnell is understood to have decided recently to withdraw from the investigation before the Irish Commission, upon the ground that it refuses to allow the introduction of evidence to prove that Pigott inspired, if he did not write, the articles upon Parnellism and Crime. But the withdrawal would have been a great mistake. The *Times* practically undertook to prove the complicity of Mr. Parnell with the worst crimes in Ireland. This was the universal understanding of the investigation. If the *Times* should fail, it would cover itself with shame and discredit, and have done more than was otherwise possible to commend Mr. Parnell to British confidence and to aid the cause of Ireland.

The chief reliance of the *Times* has broken down, its chief witness, branded as a perjurer, fled the country and killed himself, and it has failed completely in its main purpose. But the full moral weight of its failure requires the formal and decent conclusion of the legal inquiry. To withdraw would inevitably impress the public mind as a sign of apprehension of the result, and affect Mr. Parnell's position most unfavorably. After the total discomfiture of Pigott, nothing has been more serviceable to him than the testimony of Michael Davitt, whose sincerity and truthfulness are not doubted, and who is known to differ with Mr. Parnell upon many points of policy. Mr. Davitt, however, says that if Mr. Parnell's views could prevail, the separatist feeling would disappear.

This is also an unexpected vindication of Mr. Gladstone's view. The strongest Tory charge against him is that of separatism. But the frankest and honestest separatist concedes that the Gladstone policy would put an end to separatism. The worst blow which the investigation has dealt Mr. Parnell was his own admission that he deliberately deceived the House of Commons. But in the encounter with the *Times* he has been victorious.

WASHINGTON ON PARTY SPIRIT.

In his recent extraordinary speech at Woodstock, Connecticut, Senator Hiscock, of New York, said:

> "If we critically examine the history of our country, we will discover no signs of political degeneracy in the present. If another Washington were living to-day, possessed of the same lofty intellect, imbued with equally high virtues, equally patriotic, equally distinguished in all qualities that we impute to the Father of his Country, I doubt not he would be a leader of one or the other of our great political organizations, accept from it the nomination for the Presidency, and hope to attain the distinction of his election by the methods that were adopted by the rival parties last fall."

The methods adopted by the successful party last fall were, with others, as everybody remembers, "frying the fat out of manufacturers," and marshalling "voters in blocks of five." In the State of New York there was also a large trading of votes for Governor Hill for Harrison votes. Senator Hiscock says that Washington would have hoped to be elected by such means.

The Senator's critical examination of the character and career of Washington may lead him to that conclusion. But before young Americans accept the Senator's view of the man whom his country reveres, let them consider the last words that Washington addressed to his countrymen, and decide for themselves whether he would now be the unscrupulous partisan whom Senator Hiscock depicts:

> "Let me now take a more comprehensive view, and warn you, in the most solemn manner, against the baneful effects of the spirit of party generally.... It exists under different shapes in all governments, more or less stifled, controlled, or repressed; but in those of the popular form it is seen in its greatest rankness, and is truly their worst enemy. The alternate domination of one faction over another, sharpened by the spirit of revenge, natural to party dissension, which in different ages and countries has perpetuated the most horrid enormities, is itself a frightful despotism.... There is an opinion that parties in free countries are useful checks upon the administration of the government, and sure to keep alive the spirit of liberty. This within certain limits is probably true, and in governments of a monarchical cast patriotism may look with indulgence, if not with favor, upon the spirit of party. But in those of the popular character, in governments purely elective, it is a spirit not to be encouraged.... And there being constant danger of excess, the effort ought to be, by force of public opinion, to mitigate and assuage it. A fire not to be quenched, it demands a uniform vigilance to prevent its bursting into a flame, lest, instead of warming, it should consume."

This is the man who, as Senator Hiscock's critical examination of history has satisfied him, would have hoped to be elected President by methods which no man has so solemnly denounced and repudiated as most dangerous to liberty and the public welfare.

PATRIOTISM IN EDUCATION.

Colonel George T. Balch, who has made a long and careful study of the condition of the poorer population of the city of New York, recently delivered an interesting address before the teachers of the Industrial Schools of the Children's Aid Society, treating especially the necessity of patriotic education. The general result of his investigation and correspondence with other States is great confidence in the general educational system as tending to promote a national spirit. The improvement in the condition of immigrants he also thinks to be marked and unquestionable.

Colonel Balch says:

> "Between October, 1819, and December, 1889, there came to this country 14,429,000 immigrants, of whom 10,230,000 landed at New York. From Ireland there came 3,391,000, and from Germany 4,360,000, very many of the latter coming after the German revolution of 1848–9. In 1791 the population of Ireland was 4,200,000. There were 483,000 cabins of one hearth each, and these generally consisted of one room, with no door or chimney. The inhabitants paid the one-hearth tax. There were 168,234 cabins whose inhabitants were too poor to pay the tax. In 1841 the peasant population was 2,052,000, and the civic 1,043,000. They lived about six in a house. The tenements in this city are palaces in comparison."

About two-thirds of the people in the city of New York live in tenement-houses, and the education of this population is of the highest importance. The public schools teach about 196,000, the sectarian schools about 32,000, and there are 33 non-sectarian pauper schools. The scholars in all public schools are largely drawn from the tenement-houses. Dr. Hill, of whose views we speak elsewhere, would have the public schools so good as to attract all the children, and he would establish a careful supervision of private schools.

Colonel Balch remarks that the attendance in private schools is steadily decreasing. But the public schools are not capable of accommodating all children of school age, and a very large proportion of such children are not enrolled in the schools. It is only lately that systematic efforts have been made to inculcate patriotism. Indeed it is imperatively necessary by the most effective means to Americanize this vast immigration as rapidly as possible. To this end schools of various nationalities and different languages should be discouraged. It is indispensable that colonies of foreigners among us should not be permitted, and every new-comer should be required, as soon as possible and as far as practicable, to become an American.

THE INDIAN COMMISSIONER.

The retention of competent teachers, farmers, and other subordinates of the Indian service by the new Commissioner, Morgan, deserves the highest praise, not because it is not a duty, but because it is a duty which demands courage and strong conviction for its performance. The reappointments are accompanied with this circular:

> "These approvals are made with the distinct understanding (1) that the parties named are thoroughly competent to fill the positions for which they are nominated, and that they will be zealous and faithful in the performance of their duties; (2) that their tenure of office is permanent so long as they remain competent and efficient; and (3) that this office reserves the right to remove, for cause only, any employé upon sufficient evidence of unfitness for the position held."

If Mr. Postmaster-General Wanamaker had issued such a circular to the fourth-class postmasters, he would not have covered the party platform with contempt. Commissioner Morgan's conduct in this matter is in conformity with that of his predecessor, and with that of Commissioner Roosevelt, of which we speak elsewhere; it marks a strong stand and excellent promise for reform.

PERSONAL.

A recent issue of the London *Star* has the following appreciative characterization of Edwin A. Abbey:

> "He has the simplest and most unassuming manners, and his face beams with such cheerfulness and good-humor that the expression of his brown eyes somehow suggests a fun-loving boy, and perhaps this is the reason why every one docks ten years from Mr. Abbey's age. He writes to a friend from Worcestershire: 'I think I told you I had been rash enough to attempt some drawings to an edition of Shakespeare's comedies, that I have cut the season, which means depriving myself of much pleasure.' Mr. Abbey is so modest when he speaks of his rashness in illustrating the immortal comedies. He is by far the best artist in black and white in the world, and doubtless these illustrations will surpass anything he has ever done."

—Frederick Douglass, once a slave, is said to be worth $300,000.

—General Grant's memoirs have thus far netted his widow about $900,000.

—Miss Gwendolen Caldwell, the Kentucky girl who gave $300,000 toward the Roman Catholic University at Washington, and is worth at least a million besides, is engaged to Prince Murat.

—An exceedingly sad incident marked the introduction of the late Mrs. Julia Gardiner Tyler to her husband, President John Tyler, in 1844. With her father, Mr. Gardiner, she had just returned to this country from Europe, and was visiting in Washington when the two were invited by the President to join a pleasure excursion down the river on the war steamer *Princeton*. During the trip the explosion of a gun killed Mr. Gardiner and several others. Mr. Gardiner's body was taken to the White House, and in the sad scenes attending the funeral began the acquaintance which ripened into intimacy, and resulted in the marriage of Miss Gardiner to the President.

—The wedding trousseau provided by the Czarina of Russia for her niece, the Princess Royal of Greece, cost over 300,000 rubles, or about $150,000.

—Captain Bundy, of Chicago, a religious enthusiast, has built a steam gospel ship, and is making a tour of the lakes in her, stopping at various towns along the way to hold religious services. He is accompanied by his daughter, and pays his expenses largely himself.

—Two policemen are constantly on guard at General Grant's tomb in Riverside Park, the six men detailed for the purpose being on duty in couples for eight hours each.

—The *Journal des Débats*, of Paris, one of the most influential of French newspapers, has just celebrated its one-hundredth birthday. Among the members of its staff have been such brilliant writers as Châteaubriand, Thiers, Renan, Taine, and Jules Simon.

—The late John Gilbert had a holy horror of sales of the wardrobes of distinguished actors, and gave orders before he died that, aside from a few things which his wife might wish to give away to friends, his old clothes should be burned.

—William Throckmorton, of Griffin, Georgia, has a 'possum farm near that town, where he raises about five hundred opossums yearly, and ships them to different parts of the country in the season. The farm consists of a ten-acre persimmon grove, thickly interspersed with old hollow trees or hollow logs thrust into the ground. Here are 'possums of all sizes, from the little one-pounder to the big fellows that weigh nearly thirty pounds. When the persimmons are ripe the animals reach their perfection as a delicacy, and during the remainder of the year they are fed on fruit peelings, vegetables, bits of bread and meat, and other kitchen slops.

—Mrs. Harrison is bored daily with numerous letters from persons of her own sex. Some of them beg for a piece of one of her dresses for a crazy quilt, for a tress of her hair, or for a substantial contribution to some charity, while others give her all manner of advice on subjects in which the writers are little fitted to advise. The present lady of the White House has learned the full value of a waste-basket.

—Mrs. Angie Truax, a retired actress, has invented a combination electric land and marine carriage, and thinks that she will be able to apply the same principles to aerial navigation. Mrs. Truax's carriage is provided with electric lights, a tent, and an electric stove for cooking or heating, and is propelled by an eight-volt battery.

—Baltimore people are to erect a monument over the grave of Francis Scott Key, the author of "The Star-spangled Banner."

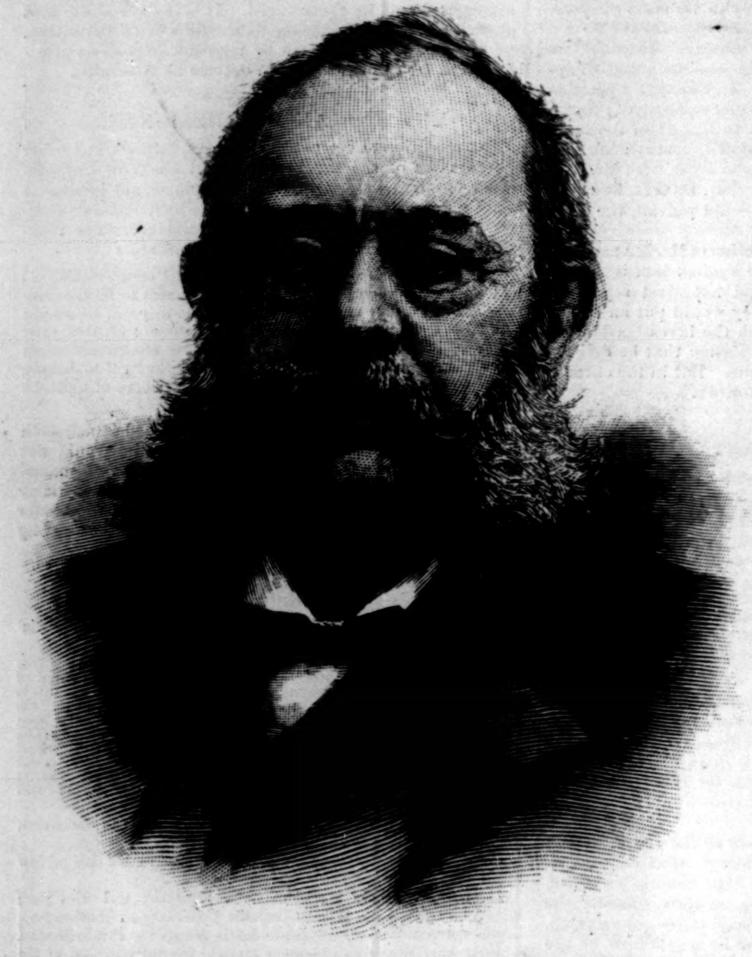
—D. K. Pearson, the Chicago millionaire, has, during the last few years, given Western educational institutions nearly $800,000.

—The Grand Army Post at Fond du Lac, Michigan, has dropped General Bragg from its roll of membership because he opposed the Dependent Pension Bill.

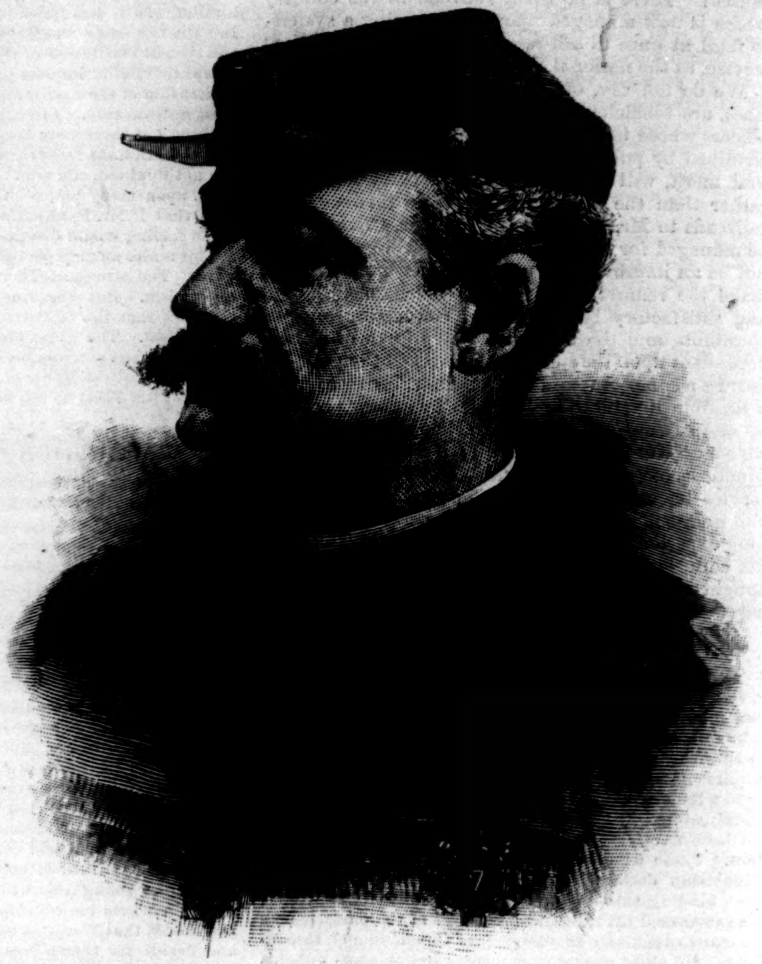
—Wilkie Collins has had a second light stroke of paralysis, which, while it has not seriously endangered his life, has helped to cripple him physically.

—The graves of Shelley, Keats, and Severn in the Protestant cemetery at Rome are in danger of demolition, it is said, as the city authorities have appropriated the ground for other purposes.

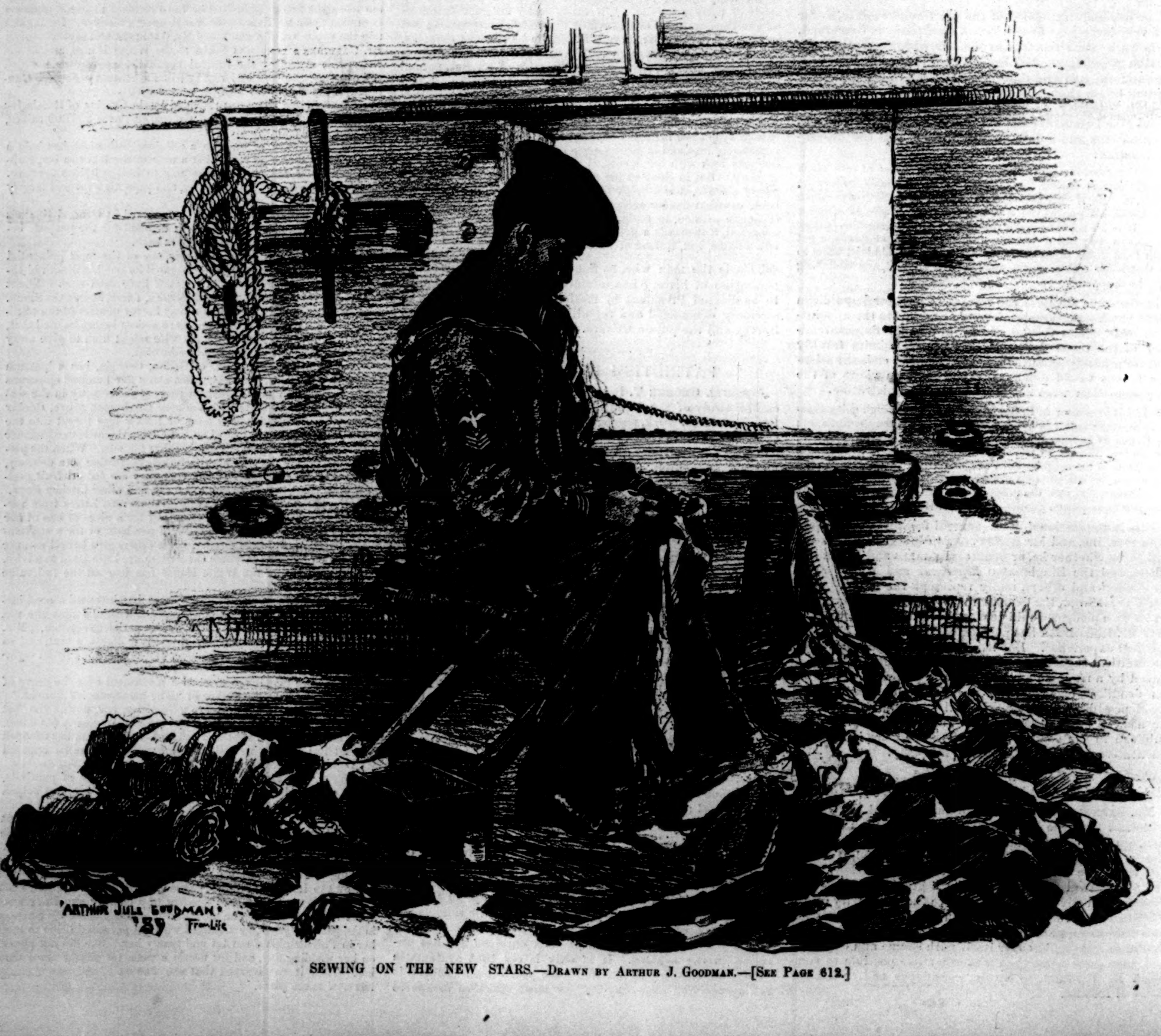
—The Johnstown disaster swept away Miss Angie Fackler's wedding trousseau and her house, but spared her to be married to Edward Levy, a wealthy Omaha man, to whom she had been engaged twenty-five years. Quarter of a century ago Levy went West to make his fortune, and having accomplished his purpose in the past few years, he arranged with his promised bride to meet her in Philadelphia June 1st and marry her. She did not appear on her wedding day, and for nearly a week no tidings came from her. Then it was learned that she was safe, and her marriage has now taken place.



THE LATE S. L. M. BARLOW, OF NEW YORK.
FROM A PHOTOGRAPH BY KURTZ.—[SEE PAGE 607.]



DANIEL APPLETON, THE NEWLY ELECTED COLONEL OF THE SEVENTH REGIMENT, N.G.S.N.Y.—FROM A PHOTOGRAPH BY STEAD.—[SEE PAGE 612.]


'ARTHUR JULE GOODMAN'
'89 From Life

SEWING ON THE NEW STARS.—DRAWN BY ARTHUR J. GOODMAN.—[SEE PAGE 612.]

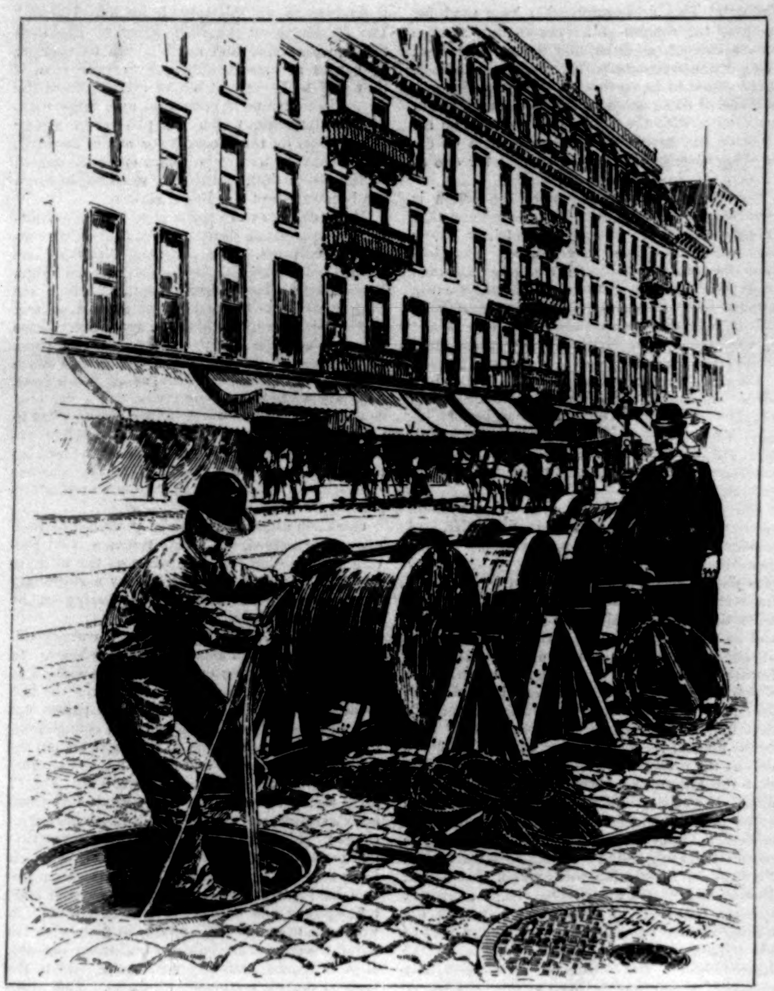


Fig. 21.—DRAWING FOUR CABLES INTO AN UNDERGROUND DUCT.

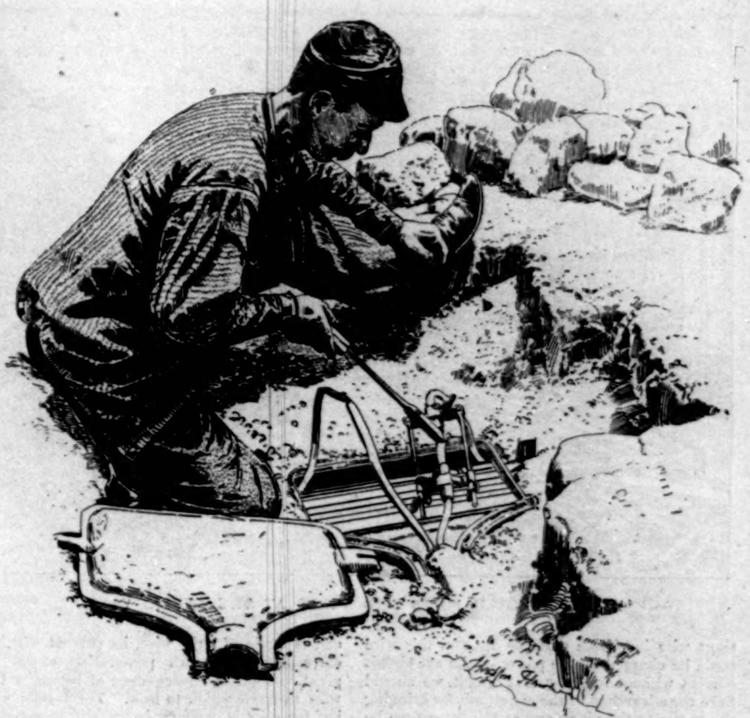


Fig. 22.—MAKING A HOUSE CONNECTION UNDERGROUND.

ELECTRIC LIGHTING IN NEW YORK.

[*Continued from page 596, Supplement.*]

systems respectively. One of these, the "three-wire system," is really two ordinary multiple arc circuits with two of the conductors, one of each circuit, merged into one, so that there are only three conductors, which supply two full sets of lights as if the circuits were entirely separate. This arrangement permits a considerable saving of wire, but not as much as is saved by the method of the alternating current. It is now used by the Edison Company in place of the simple multiple arc circuit of two main wires.

The multiple series system is a device for connecting incandescent lights into an arc light circuit. A number of incandescent lamps, sufficient when combined to stand the strong current of the arc circuit, are connected to the wire at the required location, in place of one of the regular arc lamps. This arrangement has several disadvantages, of which one is that a single lamp cannot be turned off, because the remaining ones will not be able to carry the entire current. In the multiple arc system, the current of each lamp being entirely independent of the others, any number of lamps can be turned off and on at will without affecting the rest. This is one of the most important facts about the multiple arc method of connection.

But the heavy wires required for running lamps in multiple arc are too costly to permit lights being supplied economically at long distances through them. If the lights could be connected to a

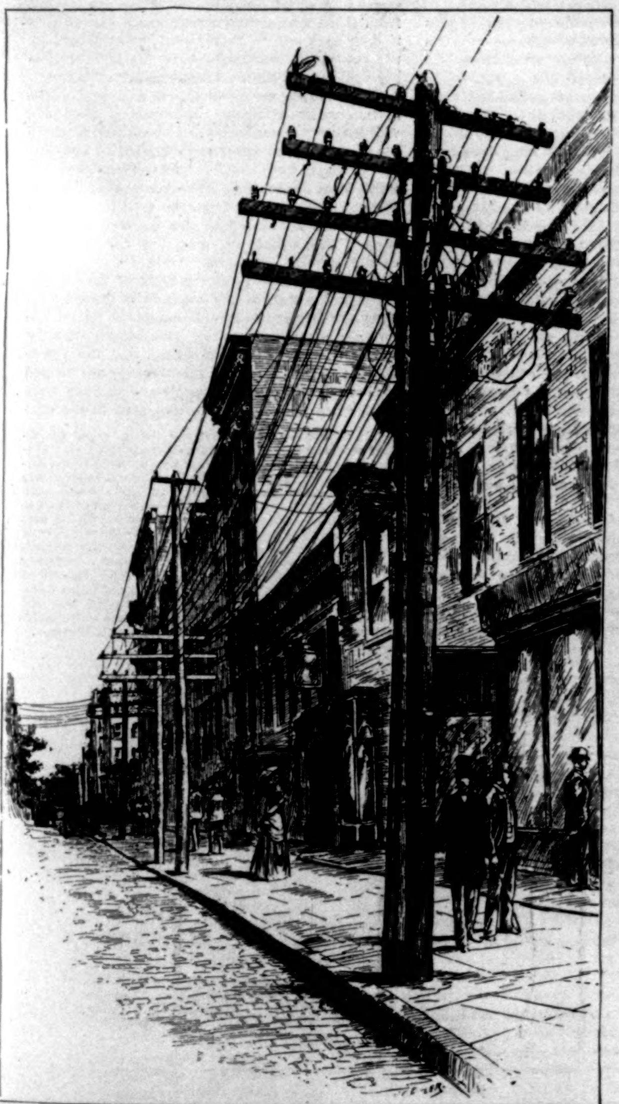


Fig. 23.—A "TERMINAL" POLE WITH WIRES CONNECTED TO SUBWAY.

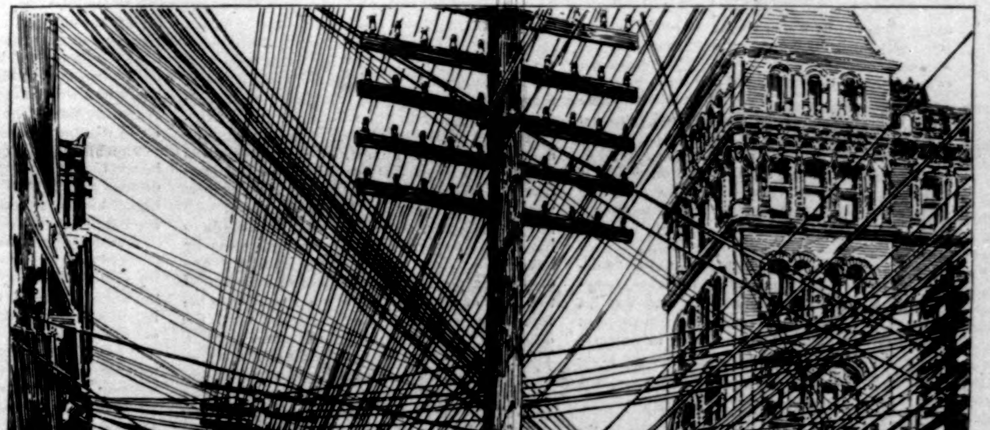


Fig. 25.—DISORDERLY WIRES ON LOWER BROADWAY ABOUT TO BE CUT DOWN.

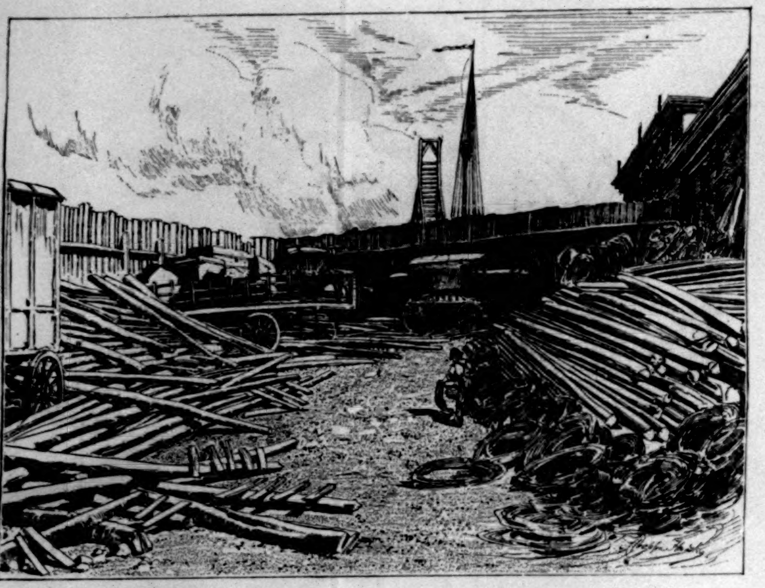


FIG. 26.—REMOVED POLES AND WIRES AT THE PUBLIC YARD.

short wire in simple multiple arc, and this wire could be charged by the power of the arc circuit current without touching that circuit, we should have the advantage of the arc circuit for bringing the power to the place, and at the same time be able to turn each light off and on independently. This is precisely what is accomplished by the alternating system.

In this system the power is carried on small wires by means of high pressure to the locality of the lights, and is there absorbed by an induction coil, which generates a low-pressure current in a separate wire, to which the lamps are connected in multiple arc, and from which they are supplied. As the only way of carrying the power long distances economically is by using high pressure, it was very desirable to have the lamps run by power from a high-pressure wire; at the same time it was desirable to have them not connected to it, to avoid danger of shocks. Attention was therefore given to the problem of obtaining from a high-pressure current another current which could be of low pressure in a separate wire, and by which the lights could be supplied without being connected with the main line. It was known that such a transfer or recreation of a new current from an old one could be made with an ordinary induction coil by connecting the main line to one part of the coil and the local lamp wires of the house to its other part. The coil would then generate the current required in the house-wiring; but the principle on which it generates the current required that the main line current be rapidly interrupted and reconnected. And though this interrupting could not be done without complicated machinery, a number of attempts were made to do it, on account of the desirability of operating incandescent lights cheaply from long circuits; finally the idea was hit upon of making the current itself intermittent before it was sent out on the wire, in order to do away with this machinery, and then the problem was solved.

THE ALTERNATING CURRENT.

To appreciate properly the importance of the alternating current and the inventions to which it is likely to lead, we must review the ways in which electricity produces its effects. A current passing through a wire may produce either heat or chemical decomposition, and at the moment of *starting* it shoots out into space invisible lines of force or energy which will generate a brief current in any neighboring conductors which they meet. But this effect, which we call induction, is only momentary, and the induced current ceases immediately. When the inducing current is stopped, a similar but reversed action takes place, the lines of force returning into the wire, and inducing in the neighboring conductor another momentary current flowing in the opposite direction. This induction is the means by which all currents are generated in a wire. As the currents so produced are only momentary, it is necessary to again start and stop the acting or inducing current to produce other momentary currents in the separate wire. When such interruptions are made to succeed each other with great rapidity, the momentary currents generated succeed each other with equal rapidity, and even become a constant vibratory flow of current in the second wire, without its being connected in any way with the inducing wire.

The effect of the induction due to the interruptions of the primary current may be increased, in fact, exactly doubled, by sending the current instantly in the opposite direction, and then reversing it, and so on, instead of simply stopping it at each pulsation, since the electrical changes in the wire will then be twice as great and sudden as if the current were simply interrupted and then restored without there being a reversed current in the interval.

The power of the electricity transferred by this means to the second wire is proportional to the lengths of the first and second wires, which must be placed parallel, as that is the position required to produce the action. To get a sufficient length of the wires in proximity to each other, they are usually wound together in large coils, which are called induction coils. If in such a coil the secondary wire is wound many times around the other the current produced in it will have great penetrating power with but little volume, while if it is wound only a few times around, and is made of large wire, its current will have correspondingly small penetrating power, but great volume, in consequence of having a large wire through which to flow. The former winding for coils is common in medical batteries for converting the low current of the chemical cell into a high current which can be felt without having enough volume to do harm. When these coils are being used the humming noise of part of the instrument is always noticed. This noise is caused by a mechanism which interrupts the exciting current rapidly for the purpose of producing the induction. Electricians started with this device as a means of converting a high-pressure current, by which power could be carried a long distance economically, into a current of low pressure, which would be safe and manageable for every-day use; but the vibrating mechanism accompanying the coil could not be left at every house to take care of itself. This difficulty was overcome by substituting for the continuous current, which required interrupters at each coil, a current which was itself vibratory, or "alternating," and constructing the dynamos so that the current generated would alternate as it came out of them. This invention permitted the interrupters to be dispensed with entirely. The induction coils thus simplified were also doubled in power by the substitution of the current which alternated instead of merely stopping and starting. The number of alternations was increased to about 300 per second, an immense rate of vibration, by which the effects of the coils were made still greater. The two coils of wire in each induction instrument were then made to have more powerful effect upon each other by interlocking them with magnetic iron, by means of which a portion of the inductive influence of the main or exciting coil, which had always before been wasted, was concentrated upon the other coil, thereby increasing the effect upon it. The principle of the whole device is shown in Fig. 14, which will serve to explain its construction. A portion of the current from the main line flows from a branching connection through a coil wound around a bundle of iron, which becomes magnetic every time a current surrounds it. Upon this magnet is another coil of wire of larger size, connected to the lamps in the house, in multiple arc, in the usual manner, as explained in Fig. 13. The alternating current passing from the main line through the first coil magnetizes and demagnetizes the bar at each alternation, and generates brief but powerful currents in the second or lamp coil, the magnet serving merely to carry the excitation from the primary coil into the centre of the secondary coil to add to the effect. The magnet is always made of very thin sheets of iron, separated by tissue-paper, for the reason that were it not cut up, the alternations would induce currents in it instead of in the secondary coil, to prevent which it must be broken up or laminated, so that no current can circulate in it.

The induction coil thus simplified and improved is known as a converter, because it serves to convert the electrical energy of one line into new energy in another line.

An important feature of the converter is that its magnet reacts upon the primary coil, and prevents any currents being drawn from the main line except when the magnet is weakened by doing work in generating current in the secondary coil. A current can flow from the secondary coil only when lamps are connected to it, no current is drawn from the main line unless some is being actually used on the lamp circuit. When a small current is drawn it produces a corresponding effect upon the magnet, and a proportionate current is taken from the line.

By using a very large wire having but few turns for the secondary coil, the current derived may be made to have great volume, while its pressure or penetrating power depends upon the number of turns of wire that are used in the secondary coil. By selecting a sufficiently large size of wire the apparatus can be made to give any desired quantity of current, suitable, for instance, to run a large or small number of incandescent lights, while its pressure may be very low compared with that of the main line. The range of the converter is not limited to this, however, for by varying the size of wire used in the coils it may be built to produce a still lower pressure from a high one, or *vice versa*, as in changing a low-pressure current into one of very great pressure. This arrangement has been used for changing the current of a dynamo into a more intense current, in order that it may be carried a long distance economically for special purposes. There seems to be no limit to the use which can be made of these simple coils when employed in conjunction with the alternating current, on account of the means which they furnish of exchanging any given kind of current for one of any other desired dimensions.

The efficiency or perfection of converters is quite remarkable. It will be remembered that dynamo generators produce in electricity ninety per cent. of the power they receive. The yield from the secondary coil of a converter has over ninety-five per cent. of the power of the current supplied to the primary coil. This transformation or exchange with almost no loss is not equalled nor approached in any machinery used in the other arts.

The converters are usually incased in cast-iron boxes. Figure 15 shows the appearance of one complete and ready to be fastened up in a building. The two ends of the two coils are seen projecting through the case at the top, ready to be connected to the main line and to the lamps in the building respectively.

The introduction of the alternating method opens up an entirely new field in electricity, and presents a fresh supply of possibilities. As the most important transformations of electricity into useful products are facilitated by its ready transfer into separate currents of different volumes that are convenient for different purposes, and as this change can be made only by the use of constant interruptions to operate the transformer, the invention of a form of electricity in which the pulsations are self-contained gives us practically a new force. It is owing to the fact that half of the uses which are made of electricity depend upon the effects which it produces only at the moments of its starting and stopping that the alternating current is of such importance. It contains in a condensed form all of the active powers of electricity, while the continuous current contains only half of them, namely, the power of heating and of effecting chemical action. Perhaps an illustration will explain this better. Motion and power are derived from electricity through its power of attraction; but after the electrified wire has attracted the moving part of the apparatus to it, the motion will continue no further unless the attraction is stopped long enough for the moving part to be put back so that it can be attracted again. This must be done during an interval in the attraction, which can be obtained only by interrupting or switching off the current, unless the current is of itself vibratory or alternating. With a current of this kind the part which had been attracted can move back when the current reverses, and be attracted again by the next current of the right direction. A continuous motion to and fro will then be kept up in the movable piece without any switch.

The alternating current, which possesses the intervals and reversals required to produce additional effects, may be looked upon, then, as a higher kind of electricity, possessing greater powers than those of the ordinary current.

The original object of the introduction of this energy-radiating current was to generate currents for electric lighting in separate wires from one main line, by means of simple coils in each building, to which the local wires are connected without being connected to the main line. The main line might then be safely charged at high pressure, for the purpose of reaching long distances, without danger from the local wires. It might be interesting to mention here that the same thing is being done in Boston, for the same reasons, with steam, or rather superheated water, which is carried in strong pipes through the streets at very high pressure, and converted at the houses into low-pressure steam, which is easier to handle. The same object has now been completely accomplished with electricity, which affords a better means of generating the low pressure sought for, and lighting is now done on this plan on a very large scale, while the examination of the properties of the new current possessing the new feature of a surrounding region of intense energy has led to remarkable inventions, and to discoveries as to the nature of electricity. It has been found, for example, that electricity, magnetism, and light are very much alike, if not exactly the same thing.

In New York electric lights are supplied by alternating currents over wires six and eight miles long by the Manhattan Electric Light Company, who, by means of this system, are enabled to establish their generating station at a distance on the outskirts of the city, where the operating expenses are a minimum. The machinery used is known as the Slattery Induction System.* The station is on the East River at Eightieth Street, where coal and supplies can be brought by barges at considerably less expense than if they had to be unloaded and carted across the city. The current is generated by a large number of dynamos, which are placed on strong foundations on the second floor of the building, and are driven by five powerful engines situated on the floor below, and similar to those shown in the illustration of the Brush station.

These dynamos are quite large, but are somewhat simpler than those used in generating continuous currents. Fig. 16 gives a view of one of the kind used, which supplies a thousand lights. It contains twelve powerful magnets, which are supported by its frame, and surround a central space which they keep highly magnetized. These magnets and the circular space between them may be seen in the drawing. Within this space is a revolving drum or wheel, which has a great length of wires wound upon it in such a way that as the wheel rotates the wires are passed close to each magnet in succession. As the wires approach, a current is generated in them; and as they pass away from the magnets this current ceases, and a current of the opposite direction is generated.

One such alternation will be produced as each magnet is passed. All that remains is to provide a connection from the wires on the wheel to the line outside. This is made by a stationary spring connected to the line, and bearing on the wheel as it revolves.

This part is much simpler than the corresponding part in continuous current machines. In these the generating operation is the same, and the current is alternating until it leaves the machine, but is made continuous as it passes out by a rapid automatic changing of the connections, which sends the currents to the right and to the left, in harmony with and correcting the alternations as fast as the armature revolves. Fig. 17 gives a view of one room of the Manhattan Company's station, and shows how the machines are arranged. This building is the latest and largest that has been put up for electric light purposes. It has a capacity nearly double that of any other station, having accommodations for engines of 5000 horse-power, and dynamos for 70,000 lights. It was built upon the most approved plan, with the aid of the experience gained with former stations. It is fire-proof, and very substantial, and is the best arranged station in the city. The wires from each machine are led to switches placed on the wall, which can be seen in the background of the picture, and above these are metres which show constantly the amount of current being supplied over each wire. All of the electricity generated here is carried down to the centre of the city in comparatively small wires over a well-built line of poles five miles long. From this line, part of which is shown in Fig. 18, the wires are turned off at convenient corners, and carried across town on other poles to the terminals of the subways, where they are connected to the corresponding cables underground, which in turn are connected by branches to numerous theatres and stores. A great many public places are lighted from these wires, the current which can be carried by each one of them, when transformed by the converters into currents of low pressure, being sufficient to light a large number of lamps.

To show the arrangement of the rest of the system, we illustrate the appliances as used in a well-known theatre in Twenty-third Street, where fourteen hundred lights are supplied by converters through two slender wires which run six miles from the station. The wires, after passing through the subways from the pole lines to the theatre, are connected to five converters of the largest size, which are placed in the basement of the building, as shown in Fig. 18.

The wires come in at the right of the picture through the wall of the vault from the subway. They are carried horizontally along the wall to the left, and after passing through a large switch, by which they may be interrupted and the entire current cut off from the theatre, they are tapped by branch wires, which supply the primary coils of the five powerful converters seen in the con-

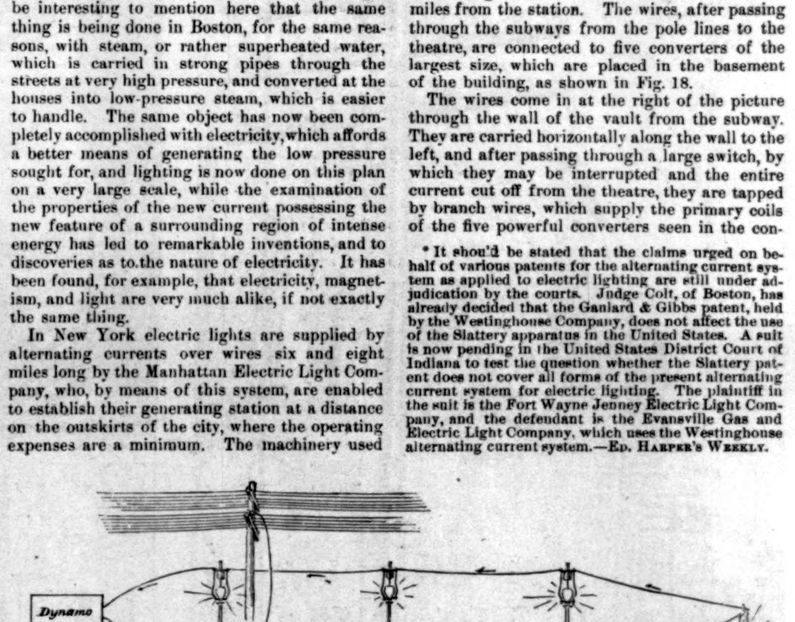


FIG. 27.—HOW A SHOCK IS RECEIVED—DIAGRAM OF A GROUND CONVERTER.

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* It shou'd be stated that the claims urged on behalf of various patents for the alternating current system as applied to electric lighting are still under adjudication by the courts. Judge Colt, of Boston, has already decided that the Gaulard & Gibbs patent, held by the Westinghouse Company, does not affect the use of the Slattery apparatus in the United States. A suit is now pending in the United States District Court of Indiana to test the question whether the Slattery patent does not cover all forms of the present alternating current system for electric lighting. The plaintiff in the suit is the Fort Wayne Jenney Electric Light Company, and the defendant is the Evansville Gas and Electric Light Company, which uses the Westinghouse alternating current system.—ED. HARPER'S WEEKLY.

verter room. These are on the same principle as the one described with the diagram Fig. 14.

The house wires, connected with the secondary coils, are carried upstairs to a large switch-board on the stage at one side of the proscenium arch. The wires from the lights in all parts of the house are run separately to this point, and are here controlled by switches placed within reach of the gas-man, that name being given in theatres to the man who attends the lights, whether they be gas or electric. A part of the lights, which sometimes require to be lowered gradually, such as the foot-lights, etc., are provided with regulators, by which the amount of current passing to the lamps may be controlled. These are placed beside the other switches at the right in the view, and the whole makes an imposing but simple array of cranks and levers. The "gas-man," standing at the lamp-regulator board, a view of which is given in Fig. 20, has perfect and instantaneous control of every light in the building, whether in the auditorium or on the stage, in the flies or in the dressing-rooms. These lights are very convenient for theatrical people, because they can be turned on instantly without the aid of a torch. They do not produce enough heat to cause discomfort in warm weather, and being sealed in glass globes, they cannot vitiate the air nor set fire to inflammable materials on the stage. One of these incandescent lamps, though it be covered with highly combustible material, such as finely divided cotton saturated with turpentine or gasoline, will set nothing on fire, even if the glass globe is broken off.

The faculty of furnishing independent currents of all kinds and sizes gives the alternating current a very large field of usefulness, and although a great deal has already been done with it, its development has probably hardly commenced.

One of the successes which have been brought about by the converter, and which was impracticable until the alternating current was invented, is electric welding, which requires a current of the greatest quantity, sufficient to heat bars of all sizes to a welding heat, but which may be so low in pressure that it is almost imperceptible. Such a current, though not representing much power, because it has little pressure, could not be produced by a dynamo of any practicable size, since the current would heat the dynamo in passing through it. But with a small converter the current of an ordinary dynamo or an electric-light circuit is easily changed into another of suitably increased volume and lowered pressure. The secondary coil of coarse wire, represented by the heavy spiral in the diagram Fig. 14, is exchanged for a still coarser coil formed of a huge bar of copper, which, owing to its greater size, makes correspondingly fewer turns around the magnet. The large size of the bar permits the low-pressure current generated in it by the alternations of the main coil to be of enormous volume. The ends of this bar are attached to two vises, which serve to clamp the two pieces of metal which are to be welded together. The parts to be united are clamped in these vises with their ends in contact, and when the current is turned on, it passes from the coil to these parts, and heats them instantly to a white heat at the point where they are in contact with each other, producing a perfect weld.

The heat is concentrated at exactly the point desired, because the contact of the pieces is not as perfect for carrying the current as are the continuous portions of each piece, and consequently the current finds a greater resistance at this point, and produces its heat here. After being welded by this process the pieces are much cleaner than when welded in a furnace, because the operation is completed so quickly that the metal does not have time to scale.

THE CONSTRUCTION OF THE LINES.

The consumption of electricity having become very great, the work of obtaining the necessary rights of way and maintaining lines for carrying the current to the consumers is now absorbing the attention of electrical managers. This is most difficult in crowded cities, and is in some places, notably New York, where a long narrow territory is covered by many distinct sets of wires, the only department of the business which is uncertain, and cannot be definitely planned or estimated in advance.

To appreciate the situation as met in New York and elsewhere, for that it is not peculiar to us is proved by the fact that other cities are closely watching our treatment of the wire question, it is necessary to have some idea of the amount of wires in use, the necessity of protecting some of them, and the probable increase of each group in the future, in the ordinary growth of business.

The wires of the Fire Department are first in extent and importance. They cover practically every street in the city, and serve to connect a thousand signal boxes to one central building—Fire Head-quarters—besides furnishing connection back from this building to the houses of the fire companies, of which there are over one hundred. The necessity of preserving this net-work of wires from interruption, to prevent the danger of failure to receive alarms of fire, is self-evident. That it is not lost sight of is shown by the fact that all legislation upon the subject of wires has left the management of the Fire Department lines solely within the control of their own department, and exempt from any other regulation.

The lines of the telephone company connect with about eight thousand subscribers, and are therefore far more numerous than any others, though not of such imperative importance as those of the Fire Department. They are, like all the commercial classes, subject to official regulation.

The wires of the telegraph company are next in number, but do not occupy as many of the streets, for the reason that they run together in numbers over single routes, which are more or less direct, to the city limits, where they connect with lines beyond. The same company operates also a quantity of wires which are more scattering, like the telephone and fire wires, for connecting with various buildings to operate stock telegraph printers or "tickers," for the distribution of observatory time, and special local wires for the private use of individuals.

A comparatively small system of wires is maintained by the Police Department for their use in communicating from the station-houses to head-quarters.

These, together with a quantity of wire run by about twenty minor companies, such as the District Messenger, the Burglar Alarm, the Automatic Fire Alarm, the Livery Stable Calls, etc., make up the total of wires for signalling, which probably aggregates about fifty thousand miles.

The wires of all the electric-light companies combined, which constitute the opposite class, aggregate something less than one thousand miles, probably about nine hundred, according to the best statistics.

The signalling wires are very much alike as a class compared with the electric-light wires, being small, and usually made of iron, while the electric-light wires are large, and always of copper. The former carry weak currents, which are not dangerous, and are usually not provided with covering, while the latter carry very heavy currents, and are always insulated, or at least kept from coming into contact with each other and with the smaller wires by a wrapping of some kind. The difference between the two classes (of electric-light and signalling wires) is therefore very great, and is an important factor in the problem of the disposition of wires. Electrically, the only danger from the signalling wires lies in the fact that they may come in contact with an electric-light wire, and cause trouble by carrying the current to some unexpected point. In such case the misplaced wire which has fallen against the electric-light circuit is called, in the language of the line-man, a "foreign wire." To the electric-light companies there are fifty thousand miles of foreign wires that their own lines must be kept clear of, and consequently their chief interest in this class lies in the fact that they must so construct their own as to keep them as safe as possible from danger of contact with the foreigners. As there are only five hundred and sixty miles of streets in the city, the average number of these small wires for each street must be considerable. To make the danger of accidental contact as remote as possible, the practice in the construction of electric-light circuits has been to place them on the side of the street which is unoccupied by the other wires. But, with the rapid growth of business, the telephone and telegraph wires very soon occupied both sides of the streets in most places. And as electric-light wires had to be run to meet the demands of the public, the streets were gradually occupied on both sides by signalling and electric-light wires mixed. This of course rendered interference possible, and numerous cases of serious trouble followed.

With business increasing rapidly, and without any combined systematic arrangement of wires, something had to be done, and laws were passed placing the whole matter in charge of the Subway Commission, afterward the "Board of Electrical Control." This board, after offering for some time to allow the various companies who operate wires to lay conduits themselves in which to place their wires underground, decided to have the subways built by a company, who should rent the ducts to all alike. This Electrical Subway Company agreed to build all the ducts that should be needed by each of the other companies. After trying several methods of construction, they adopted the simplest as the best, and now make all subways of common iron pipe, about three inches in diameter, laid side by side in numbers, and imbedded in concrete. These tubes are run into square brick man-holes built at each street intersection. For wires which require connections at every building a separate conduit is laid on top of the other, terminating at the same man-holes. This distributing duct is built of cast-iron shells, or boxes, joined together in one continuous flat tube known as the Johnstone conduit, the advantage of the boxes being that a side or panel may be taken out at any point where connections are to be made, and the wires which have already been drawn into the duct may be reached and connected to, after which a new panel, having a neck or opening in it, is put on in place of the one taken off. This neck is fitted with a branching pipe to carry the branch wires. To protect the wires in the main subway from each other as much as possible they are drawn into the separate tubes forming the conduit, and for the two distinct classes of wires—namely, electric lighting and signalling—two entirely different subways are built on opposite sides of the street, following the same policy which led to the construction of overhead wires on opposite sides of the streets. All of these subways have been perfectly successful so far. The only trouble remaining which is not entirely disposed of is that caused by explosions in them of illuminating gas, which has in several cases torn up the pavements, and been a source of danger to pedestrians. But while this is far from satisfactory, it is not new, and is not in any sense ascribable, as is sometimes supposed, to the fact that the subways are electrical. There have been ten explosions of gas in these conduits, but in no case was there any wire in use, and the ignition of the gas cannot possibly be ascribed to them. There is nothing unusual in such explosions, a large number of the same character having occurred in the sewers without the cause being ascertained. One of these, which occurred about twenty years ago, is a little more conspicuous than others. It took place in the sewer in Forty-second Street, tearing off in succession the covers of seven man-holes between Fifth and Seventh avenues, a distance of about one-quarter of a mile, as the explosion advanced in that direction. While the cause of the ignition of the gas in the subways has not been ascertained, the fact has been settled that the explosive in every case was street gas, which percolates through the walls of the man-holes from the surrounding earth, which is saturated by leakage from the gas-pipes. To stop its ingress the plan has been hit upon of using a blower on the subways to keep the air in the conduits at a slight pressure, so that instead of the gas leaking in, the tendency to leakage is outward, so that the advance of the gas from the outside is checked, and the tubes are kept filled with fresh air. This has been found successful, and though as little as four per cent. of gas mixed with air will cause an explosion, this use of blowers prevents it, and there have been none where they have been in use. That the prevention is due to the blowers is proven by the fact that the last serious explosion, which occurred near the Fifth Avenue Hotel, took place within a few hours after the pressure which had been in use in that subway for some time was taken off temporarily.

The conduits for telegraph and telephone wires are more advanced than those for electric lighting, both in the number that have been laid and in the amount of wires placed in them. This is owing to their practicability for this class of conductors having been demonstrated earlier. There are now about eight thousand miles of wires in these conduits, which, with their branches, extend from the Battery to Central Park, covering an area five miles long by one mile wide.

In placing lines in the subways, the wire, made up in a cable, is brought to the spot on large reels. It is then cut up into lengths sufficient to reach through the tubes from one man-hole to the next, and drawn in piece by piece from each man-hole to the succeeding one. The friction in the tubes is so great that it would be difficult to draw in a piece longer than the distance between the man-holes, so it is drawn in in these short lengths of about two hundred and fifty feet. We give an illustration of the operation of drawing electric-light cables in at one of the man-holes. The cables in every case have a lead pipe covering outside the proper insulation of the wires, to protect them from damage from water, rough handling, etc. They are being drawn in four at a time, in order to completely fill the duct at one drawing; as, if this were not done, spaces would be left in the tube which could not be utilized afterward, because the cables already in place would be slightly crooked, and would require that the last cable should bend frequently, in order to pass around the others as it was drawn in. A cable could not be forced in under these circumstances. The cables on the four reels are paid off uniformly, and form a bundle which is drawn in by a rope passing through the duct and operated by a windlass at the next man-hole. The several cables are often painted different colors as they pass in, to enable them to be distinguished at any point without testing. The cables from which connections to buildings may be required are laid in the ducts of the sectional Johnstone conduit described before, which is usually placed on top of the main conduit. This duct is afterward opened at the proper place, and the desired one of the cables within is connected to another piece of cable which is laid in a pipe under the gutter and sidewalk across to the cellar of the building. Our figure, Fig. 22, which was taken from a photograph, shows the operation of making a branch connection from the cable in one of these distributing conduits to the short piece which is to branch off and extend into the building. One of the top panels or covers of the duct is removed, exposing all of the cables which pass through. The splicer pick out the desired main cable, cuts off the lead covering at a convenient point, and after removing the insulation and splicing the bared wire to the end of the wire of the branch cable, which has been similarly treated, wraps a tape of adhesive insulation over the joint, covering the bared parts of the wires in place of the insulation which was removed, taking care to make it attach itself to the ends of the insulation remaining on the main and branch cables. After this he takes a short piece of lead pipe which had been split so as to slip over the jointed cables, and after putting it in position, solders up the slit, and also solders it to the lead coverings of the main and branch cables, making "plumbers' wipe-joints," similar to those used on water-pipes. The same kind of completely covered joint is used in the man-holes at street corners for connecting ends of sections of the cable. When finished, the entire line of cable and its branches are completely enclosed and protected from any amount of water, should it get into the subways, and from all other destructive influences.

All of the cables laid for electric lighting are tested every day, and reports of the tests are filed with the proper officer.

At the places where the subway routes terminate, the cables from underground are connected with the overhead wires by being run through a tube to the nearest pole of the old aerial lines, and the routes of the circuits are completed through these overhead wires. The poles at which overhead and underground lines meet are called "terminal" poles. The cables, after leaving the ground at the foot of the pole and running up the tube, are connected to the corresponding overhead wires by means of small clamps, which are at the same time arranged so as to protect the cables from lightning. The clamps and connections are covered with small tin boxes to protect them and the upper ends of the cables from the weather. This matter of covering the ends of cables is of great importance, since the ends are the only places where they cannot be protected from moisture by the complete lead covering with soldered joints. We give a view of a "terminal" pole at Broadway and Thirtieth Street, Fig. 23, which has upon it a number of cables connected to overhead lines. The pole has been drawn over by the weight of the wires which was thrown on one side of it when, in clearing Broadway, all the wires were cut away from its other side. The protectors mentioned may be seen at the ends of each of the cables which run up the pole out of the ground. The circuits which supply the lights, shown in Fig. 24, connect from the underground to the overhead wires at this pole, from which they run overhead straight across town away from the subway district.

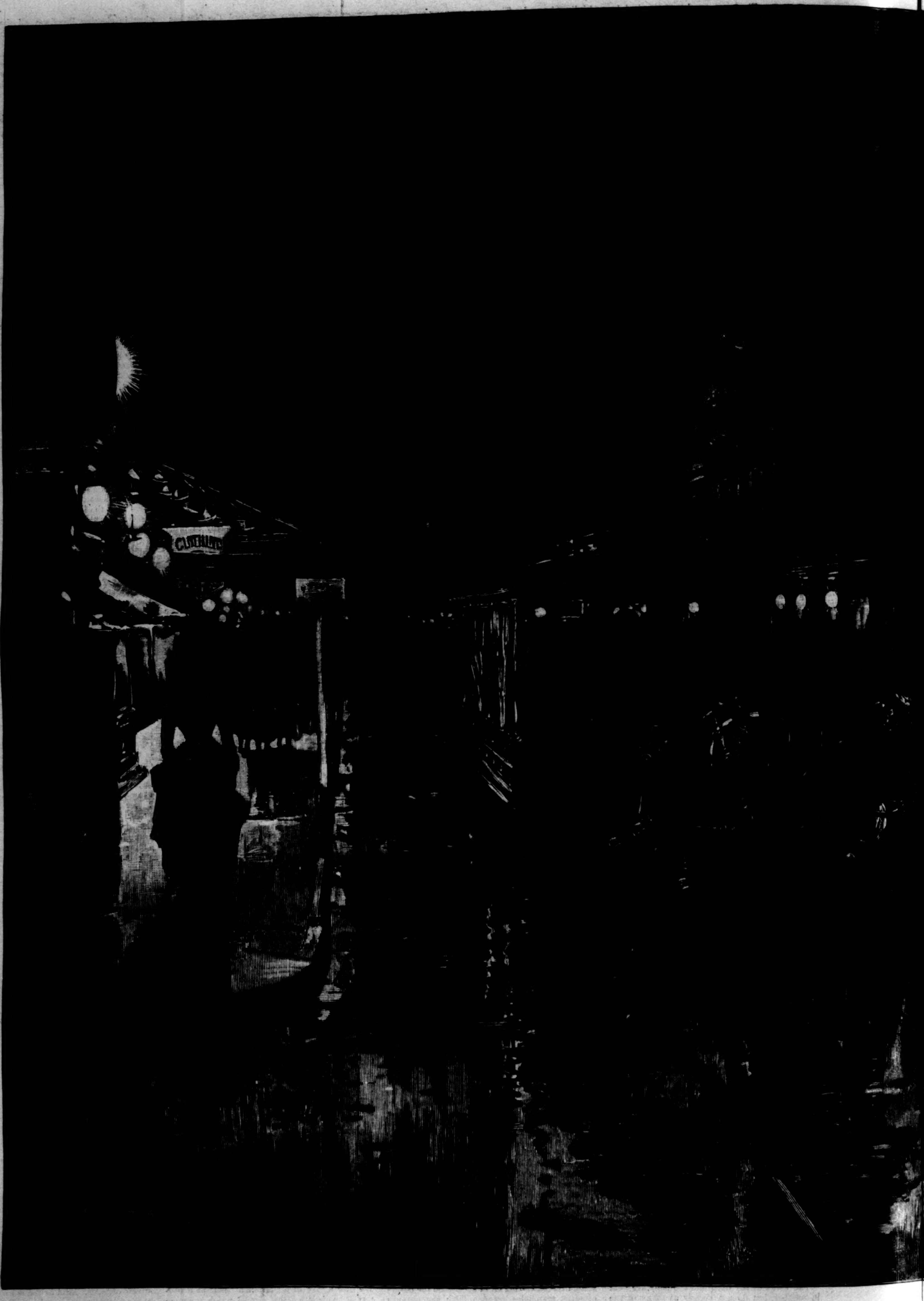
The removal of the wires from overhead to the subways has greatly improved the appearance of the streets, and has added to the neatness and beauty of such street lights as have been reconnected underground. We give a view of some lamps which are connected by underground wires in the manner already described. These lights are free from all overhead wires, so that the view is clear on all sides, and being mounted on ornamental posts, they are much more attractive than usual. The picture is taken at a point on Broadway about opposite Palmer's Theatre, where there are a number of lights, making the scene brilliant at night.

Though subways are being built as fast as possible, and the wires overhead are being placed in them as soon as they are ready for occupancy, it will be a long time before they can be provided in every street. Meanwhile some more systematic plan should be adopted for laying out the routes of such wires as must remain for the present on poles. By an orderly and semi-ornamental construction, the more important wires can easily be provided for without being as unsightly and dangerous as they are at present. If the electrical companies had long ago given this the attention which it deserves, they would not have evoked against themselves the strong public feeling which exists at present, and would probably not have been put to as much inconvenience and expense as that to which they are now subjected.

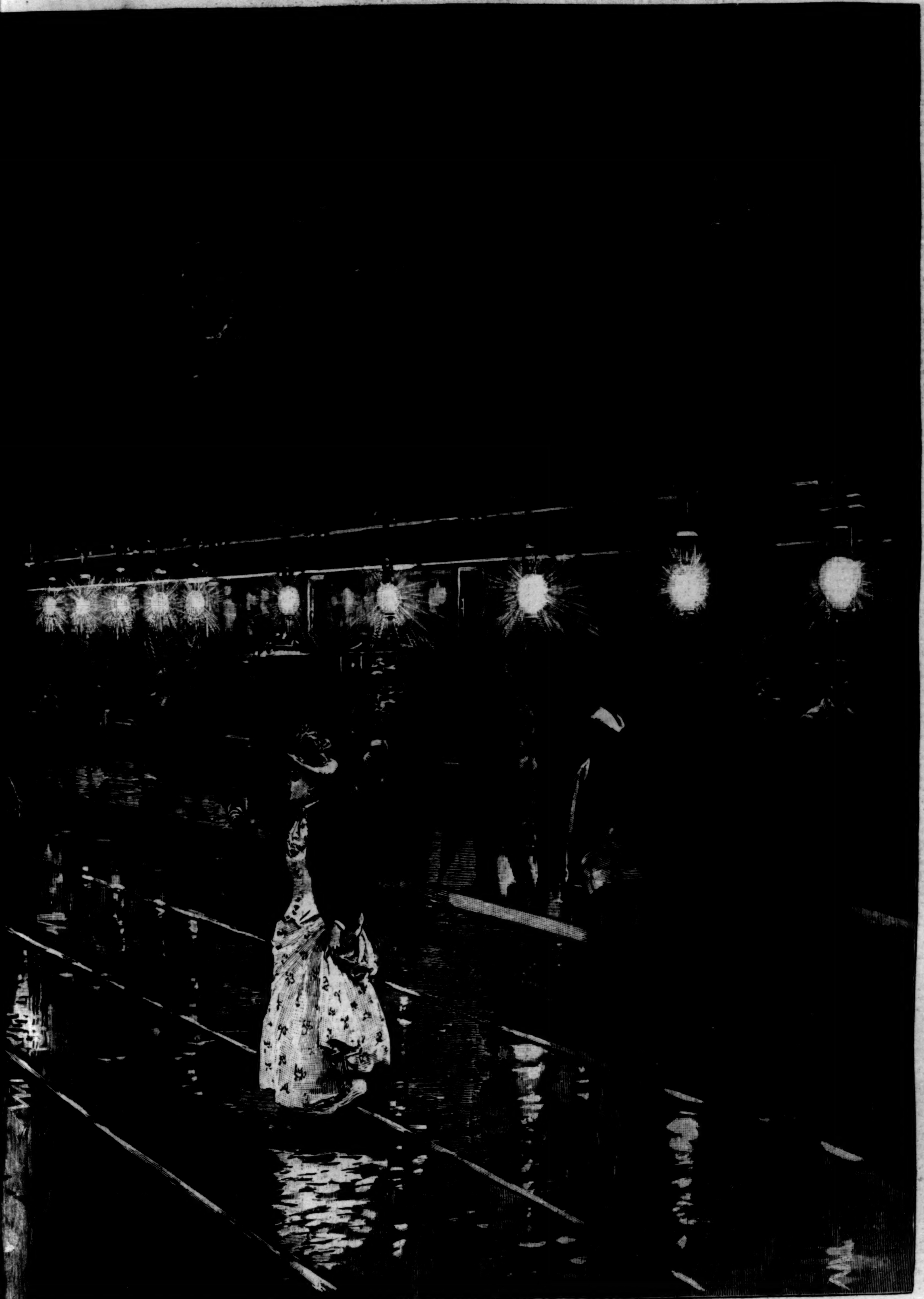
Up to the present time the mere fact that electrical wires are out of reach overhead seems to have freed them from any kind of official regulation. Streets were pre-empted and rights of way were secured and occupied by different classes of wires in confusion, without any regard to good arrangement or such disposition of them as would accommodate the largest number of wires with the least confusion and the greatest safety. This was partly owing to the rapid growth of the business, and partly to the stringing of wires, in the absence of any restraint, in numerous streets that were not occupied, to prevent other lines being built through the same territory. Then when other kinds of wires were needed they were put up through the same streets on separate poles under and over those first placed there. This process resulted finally in the presence of two, three, and in some cases four separate sets of poles on the same side of the street, carrying all kinds of wires, which were sure to come in contact and cause trouble. These wires should never have been allowed to be put together on the same side of the street.

When no longer required, these wires were seldom removed, owing to the small value of the material. On account of this, and of the running of wires to crowd others out, a great quantity of unnecessary or "dead" wires and poles were left after a few years. We give a photographic view to show how bad this disorder is even in our most important streets. The view is taken on Broadway, looking north toward the corner of John Street, within two blocks of the City Hall. The line on the left-hand side of the street is the telegraph, while on the right is the telephone route, each carrying about 800 wires. Under each of these is a line of electric-light poles. There are also in the picture fire-alarm, burglar alarm, police, stock "ticker," postal-telegraph and private wires in confusion. When the subject was agitated with a view to clearing the streets, it was found that at least half of the one hundred thousand miles of wire in this city was unnecessary, and could be removed, leaving fifty thousand miles actually in use. The city authorities then took the matter up, and have been engaged in removing such poles and wires for about one year. About twenty-five hundred poles and two thousand miles of wire have already been cut down. And the inspectors employed in tracing out useless wires are still finding them fast enough to keep the full force of men at work constantly in their removal. In addition to this all poles and wires of every description are cut away in such streets as have completed subways. This is done without regard to whether they are in use or not, each company having been given ninety days' notice to provide themselves with the necessary wires in the subway. And, strange to say, the number of unnecessary wires that were up was so great that, with the exception of the electric-light companies and the telephone company, who have lost about four hundred connections by this cutting, business has not been interfered with. All the subway streets are now entirely cleared of wires except the few in which the Fire Department circuits, which must not be interfered with, and have not been removed. The wires and poles after being cut down are removed to the public pound, where they are sold at auction. We give a view of the yard, showing the appearance of two months' accumulation (Fig. 26).

In connection with this clearing out of the subway streets, some effort has been made to straighten the remaining wires in streets where they will probably remain for some time, and to provide a uniform standard of construction, of which the line of the Manhattan Company, on First Avenue, Fig. 18, is the model. The poles of this line are high enough to carry all the wires up out of the way of fire ladders, and they are strong enough to carry all the electric-light wires in the neighborhood, thus altogether relieving several other streets of poles. And as the more delicate wires of the telephone, telegraph, and Fire Departments are on the other side of the street, there is the minimum danger of the two kinds coming in contact.



GRAND STREET, NEW YORK, AT NIGHT.—Dra



RAWN BY W. A. ROGERS.—[SEE PAGE 594, SUPPLEMENT.]

A HAZARD OF NEW FORTUNES.*

BY WILLIAM DEAN HOWELLS.

PART THIRD.

V.

Beaton went away with the smile on his face which he had kept in listening to Fulkerson, and carried it with him to the reception. He believed that Alma was vexed with him for more personal reasons than she had implied; it flattered him that she should have resented what he told her of the Dryfooses. She had scolded him in their behalf apparently; but really because he had made her jealous by his interest, of whatever kind, in some one else. What followed, had followed naturally. Unless she had been quite a simpleton she could not have met his provisional love-making on any other terms; and the reason why Beaton chiefly liked Alma Leighton was that she was not a simpleton. Even up in the country, when she was overawed by his acquaintance, at first, she was not very deeply overawed, and at times she was not overawed at all. At such times she astonished him by taking his most solemn histrionics with flippant incredulity, and even burlesquing them. But he could see, all the same, that he had caught her fancy, and he admired the skill with which she punished his neglect when they met in New York. He had really come very near forgetting the Leightons; the intangible obligations of mutual kindness which hold some men so fast, hung loosely, weakly upon him; it would not have hurt him to break from them altogether; but when he recognized them at last, he found that it strengthened them indefinitely to have Alma ignore them so completely. If she had been sentimental, or softly reproachful, that would have been the end; he could not have stood it; he would have had to drop her. But when she met him on his own ground, and obliged *him* to be sentimental, the game was in her hands. Beaton laughed, now, when he thought of that, and he said to himself that the girl had grown immensely since she had come to New York; nothing seemed to have been lost upon her; she must have kept her eyes uncommonly wide open. He noticed that especially in their talks over her work; she had profited by everything she had seen and heard; she had all of Wetmore's ideas pat; it amused Beaton to see how she seized every useful word that he dropped, too, and turned him to technical account whenever she could. He liked that; she had a great deal of talent; there was no question of that; if she were a man there could be no question of her future. He began to construct a future for her; it included provision for himself too; it was a common future, in which their lives and work were united.

He was full of the glow of its prosperity when he met Margaret Vance at the reception.

The house was one where people might chat a long time together without publicly committing themselves to an interest in each other except such as grew out of each other's ideas. Miss Vance was there because she united in her catholic sympathies or ambitions the objects of the fashionable people and of the æsthetic people who met there on common ground. It was almost the only house in New York where this happened often, and it did not happen very often there. It was a literary house, primarily, with artistic qualifications, and the frequenters of it were mostly authors and artists; Wetmore, who was always trying to fit everything with a phrase, said it was the unfrequenters who were fashionable. There was great ease there, and simplicity; and if there was not distinction, it was not for want of distinguished people, but because there seems to be some solvent in New York life that reduces all men to a common level, that touches everybody with its potent magic and brings to the surface the deeply underlying nobody. The effect for some temperaments, for consciousness, for egotism, is admirable; for curiosity, for hero-worship, it is rather baffling. It is the spirit of the street transferred to the drawing-room; indiscriminating, halting, but doubtless finally wholesome, and witnessing the immensity of the place, if not consenting to the grandeur of reputations or presences.

Beaton now denied that this house represented a salon at all, in the old sense; and he held that the salon was impossible, even undesirable, with us, when Miss Vance sighed for it. At any rate, he said that this turmoil of coming and going, this bubble and babble, this cackling and hissing of conversation, was not the expression of any such civilization as had created the salon. Here, he owned, were the elements of intellectual delightfulness, but he said their assemblage in such quantity alone denied the salon; there was too much of a good thing. The French word implied a long evening of general talk among the guests, crowned with a little chicken at supper, ending at cock-crow. Here was tea, with milk or with lemon—baths of it—and claret-cup for the hardier spirits throughout the evening. It was very nice, very pleasant, but it was not the little chicken—not the salon. In fact, he affirmed, the salon descended from above, out of the great world, and included the æsthetic world in it. But our great world, the rich people, were stupid, with no wish to be otherwise; they were not even curious about authors and artists. Beaton fancied himself speaking impartially, and so he allowed himself to speak bitterly; he said that in no other city in the world, except Vienna, perhaps, were such people so little a part of society.

"It isn't altogether the rich people's fault," said Margaret; and she spoke impartially, too. "I don't believe that the literary men and the artists would like a salon that descended to them. Madame Geoffrin you know, very plebeian; her husband was a business man of some sort."

"He would have been a howling swell in New York," said Beaton, still impartially.

Wetmore came up to their corner, with a scroll of bread and butter in one hand and a cup of tea in the other. Large and fat, and clean shaven, he looked like a monk in evening dress.

"We were talking about salons," said Margaret.

"Why don't you open a saloon yourself?" asked Wetmore, breathing thickly from the anxiety of getting through the crowd without spilling his tea.

"Like poor Lady Barberina Lemon?" said the girl, with a laugh. "What a good story! That idea of a woman who couldn't be interested in any of the arts because she was socially and traditionally the material of them! We can never reach that height of nonchalance in this country."

"Not if we tried seriously?" suggested the painter. "I've an idea that if the Americans ever gave their minds to that sort of thing, they could take the palm—or the cake, as Beaton here would say—just as they do in everything else. When we do have an aristocracy, it will be an aristocracy that will go ahead of anything the world has ever seen. Why don't somebody make a beginning, and go in openly for an ancestry, and a lower middle class, and an hereditary legislature, and all the rest? We've got liveries, and crests, and palaces, and caste feeling. We're all right as far as we've gone, and we've got the money to go any length."

"Like your natural-gas man, Mr. Beaton," said the girl, with a smiling glance round at him.

"Ah!" said Wetmore, stirring his tea, "has Beaton got a natural-gas man?"

"My natural-gas man," said Beaton, ignoring Wetmore's question, "doesn't know how to live in his palace yet, and I doubt if he has any caste feeling. I fancy his family believe themselves victims of it. They say—one of the young ladies does—that she never saw such an unsociable place as New York; nobody calls."

"That's good!" said Wetmore. "I suppose they're all ready for company too: good cook, furniture, servants, carriages?"

"Galore," said Beaton.

"Well, that's too bad. There's a chance for you, Miss Vance. Doesn't your philanthropy embrace the socially destitute as well as the financially? Just think of a family like that, without a friend, in a great city! I should think common charity had a duty, there—not to mention the uncommon."

He distinguished that kind as Margaret's by a glance of ironical deference. She had a repute for good works which was out of proportion to the works, as it always is, but she was really active in that way, under the vague obligation, which we now all feel, to be helpful. She was of the church which seems to have found a reversion to the imposing ritual of the past the way back to the early ideals of Christian brotherhood.

"Oh, they seem to have Mr. Beaton," Margaret answered, and Beaton felt obscurely flattered by her reference to his patronage of the Dryfooses.

He explained to Wetmore, "They have me because they partly own me. Dryfoos is Fulkerson's financial backer in *Every Other Week*."

"Is that so? Well, that's interesting, too. Aren't you rather astonished, Miss Vance, to see what a pretty thing Beaton is making of that magazine of his?"

"Oh," said Margaret, "it's so very nice, every way; it makes you feel as if you *did* have a country, after all. It's as *chic*—that detestable little word!—as those new French books."

"Beaton modelled it on them. But you mustn't suppose he does everything about *Every Other Week*; he'd like you to. Beaton, you haven't come up to that cover of your first number, since. That was the design of one of my pupils, Miss Vance—a little girl that Beaton discovered down in New Hampshire last summer."

"The one I told you of," said Beaton to Margaret.

"Oh yes. And have you great hopes of her, Mr. Wetmore?"

"She seems to have more love of it and knack for it than any one of her sex I've seen yet. It really looks like a case of art for art's sake, at times. But you can't tell. They're liable to get married at any moment, you know. Look here, Beaton, when your natural-gas man gets to the picture-buying stage in his development, just remember your old friends, will you? You know, Miss Vance, those new fellows have their regular stages. They never know what to do with their money, but they find out that people buy pictures, at one point. They shut your things up in their houses where nobody comes; and after a while they overeat themselves—they don't know what else to do—and die of apoplexy, and leave your pictures to a gallery, and then they see the light. It's slow, but it's pretty sure. Well, I see Beaton isn't going to move on, as he ought to do; and so *I* must. He always *was* an unconventional creature."

Wetmore went away, but Beaton remained, and he outstayed several other people who came up to speak to Miss Vance. She was interested in everybody, and she liked the talk of these clever literary, artistic, clerical, even theatrical people, and she liked the sort of court with which they recognized her fashion as well as her cleverness; it was very pleasant to be treated intellectually as if she were one of themselves, and socially as if she were not habitually the same, but a sort of guest in Bohemia, a distinguished stranger. If it was Arcadia rather than Bohemia, still she felt her quality of distinguished stranger. The flattery of it touched her fancy, and not her vanity; she had very little vanity. Beaton's devotion made the same sort of appeal; it was not so much that she liked him as she liked being the object of his admiration. She was a girl of genuine sympathies, intellectual rather than sentimental. In fact she was an intellectual person, whom qualities of the heart saved from being disagreeable, as they saved her on the other hand from being worldly or cruel in her fashionableness. She had read a great many books, and had ideas about them, quite courageous and original ideas; she knew about pictures—she had been in Wetmore's class; she was fond of music; she was willing to understand even politics; in Boston she might have been agnostic, but in New York she was sincerely religious; she was very accomplished, and perhaps it was her goodness that prevented her feeling what was not best in Beaton.

"Do you think," she said, after the retreat of one of the comers and goers left her alone with him again, "that these young ladies would like me to call on them?"

"Those young ladies?" Beaton echoed. "Miss Leighton and—"

"No; I have been there with my aunt's cards already."

"Oh yes," said Beaton, as if he had known of it; he admired the pluck and pride with which Alma had refrained from ever mentioning the fact to him, and had kept her mother from mentioning it, which must have been difficult.

"I mean the Miss Dryfooses. It seems really barbarous, if nobody goes near them. We do all kinds of things, and help all kinds of people in some ways, but we let strangers remain strangers unless they know how to make their way among us."

"The Dryfooses certainly wouldn't know how to make their way among you," said Beaton, with a sort of dreamy absence in his tone.

Miss Vance went on, speaking out the process of reasoning in her mind, rather than any conclusions she had reached. "We defend ourselves by trying to believe that they must have friends of their own, or that they would think us patronizing, and wouldn't like being made the objects of social charity; but they needn't really suppose anything of the kind."

"I don't imagine they would," said Beaton. "I think they'd be only too happy to have you come. But you wouldn't know what to do with each other, indeed, Miss Vance."

"Perhaps we shall like each other," said the girl bravely, "and then we shall know. What church are they of?"

"I don't believe they're of any," said Beaton. "The mother was brought up a Dunkard."

"A Dunkard?"

Beaton told what he knew of the primitive sect, with its early Christian polity, its literal interpretation of Christ's ethics, and it's quaint ceremonial of foot-washing; he made something picturesque of that. "The father is a Mammon-worshipper, pure and simple. I suppose the young ladies go to church, but I don't know where. They haven't tried to convert me."

"I'll tell them not to despair—after I've converted *them*," said Miss Vance. "Will you let me use you as a *point d'appui*, Mr. Beaton?"

"Any way you like. If you're really going to see them, perhaps I'd better make a confession. I left your banjo with them, after I got it put in order."

"How very nice! Then we have a common interest already."

"Do you mean the banjo, or—?"

"The banjo, decidedly. Which of them plays?"

"Neither. But the eldest heard that the banjo was 'all the rage,' as the youngest says. Perhaps you can persuade them that good works are the rage too."

Beaton had no very lively belief that Margaret would go to see the Dryfooses; he did so few of the things he proposed that he went upon the theory that others must be as faithless. Still, he had a cruel amusement in figuring the possible encounter between Margaret Vance, with her intellectual elegance, her eager sympathies, and generous ideals, and those girls with their rude past, their false and distorted perspective, their sordid and hungry selfishness, and their faith in the omnipotence of their father's wealth wounded by their experience of its present social impotence. At the bottom of his heart he sympathized with them rather than with her; he was more like them.

People had ceased coming, and some of them were going. Miss Vance said she must go too, and she was about to rise, when the host came up with March; Beaton turned away.

"Miss Vance, I want to introduce Mr. March, the editor of *Every Other Week*. You oughtn't to be restricted to the art department. We literary fellows think that arm of the service gets too much of the glory nowadays." His banter was for Beaton, but he was already beyond ear-shot, and the host went on, "Mr. March can talk with you about your favorite Boston. He's just turned his back on it."

"Oh, I hope not!" said Miss Vance. "I can't imagine anybody voluntarily leaving Boston."

"I don't say he's so bad as that," said the host, committing March to her. "He came to New York because he couldn't help it—like the rest of us. I never know whether that's a compliment to New York or not."

They talked Boston a little while, without finding that they had common acquaintance there; Miss Vance must have concluded that society was much larger in Boston than she had supposed from her visits there, or else that March did not know many people in it. But she was not a girl to care much for the inferences that might be drawn from such conclusions; she rather prided herself upon despising them; and she gave herself to the pleasure of being talked to as if she were of March's own age. In the glow of her sympathetic beauty and elegance, he talked his best, and tried to amuse her with his jokes, which he had the art of tingeing with a little seriousness on one side. He made her laugh; and he flattered her by making her think; in her turn she charmed him so much by enjoying what he said that he began to brag of his wife, as a good husband always does when another woman charms him; and she asked, Oh, was Mrs. March there; and would he introduce her?

She asked Mrs. March for her address, and whether she had a day; and she said she would come to see her, if she would let her. Mrs. March could not be so enthusiastic about her as March was, but as they walked home together they talked the girl over, and agreed about her beauty and her amiability. Mrs. March said she seemed very unspoiled for a person who must have been so much spoiled. They tried to analyze her charm, and they succeeded in formulating it as a combination of intellectual fashionableness and worldly innocence. "I think," said Mrs. March, "that city girls, brought up as she must have been, are often the most innocent of all. They never imagine the wickedness of the world, and if they marry happily they go through life as innocent as children. Everything combines to keep them so; the very hollowness of society shields them. They are the loveliest of the human race. But perhaps the rest have to pay too much for them."

"For such an exquisite creature as Miss Vance," said March, "we couldn't pay too much."

A wild laughing cry suddenly broke upon the air at the street crossing in front of them. A girl's voice called out, "Run, run, Jen! The copper is after you." A woman's figure rushed stumbling across the way and into the shadow of the houses, pursued by a burly policeman.

The Marches went along fallen from the gay spirit of their talk into a silence which he broke with a sigh. "Can that poor wretch and the radiant girl we left yonder really belong to the same system of things? How incredible they make each other seem!"

VI.

Mrs. Horn believed in the world and in society and its unwritten constitution devoutly, and she tolerated her niece's benevolent activities, as she tolerated her æsthetic sympathies, because these things, however oddly, were tolerated, even encouraged by society; and they gave Margaret a charm, they made her originality interesting. Mrs. Horn did not intend that they should ever go so far as to make her troublesome; and it was with a sense of this abeyant authority of her aunt's that the girl asked her approval of her proposed call upon the Dryfooses. She explained as well as she could the social destitution of these opulent people, and she had of course to name Beaton as the source of her knowledge concerning them.

"Did Mr. Beaton suggest your calling on them?"

"No; he rather discouraged it."

"And why do you think you ought to go in this particular instance? New York is full of people who don't know anybody."

Margaret laughed. "I suppose it's like any other charity: you reach the cases you know of. The others you say you can't help, and you try to ignore them."

"It's very romantic," said Mrs. Horn. "I hope you've counted the cost; all the possible consequences."

Margaret knew that her aunt had in mind their common experience with the Leightons, whom, to give their common conscience peace, she had called upon with her aunt's cards and excuses, and an invitation for her Thursdays, somewhat too late to make the visit seem a welcome to New York. She was so coldly received, not so much for herself as in her quality of envoy, that her aunt experienced all the comfort which vicarious penance brings. She did not perhaps consider sufficiently her niece's guiltlessness in the expiation. Margaret was not with her at St. Barnaby's in the fatal fortnight she passed there, and never saw the Leightons till she went to call upon them. She never complained: the strain of asceticism, which mysteriously exists in us all, and makes us put peas, boiled or unboiled, in our shoes, gave her patience with the snub which the Leightons presented her for her aunt. But now she said with this in mind, "Nothing seems simpler than to get rid of people if you don't want them. You merely have to let them alone."

"It isn't so pleasant, letting them alone," said Mrs. Horn.

"Or having them let you alone," said Margaret; for neither Mrs. Leighton nor Alma had ever come to enjoy the belated hospitality of Mrs. Horn's Thursdays.

"Yes, or having them let you alone," Mrs. Horn courageously consented. "And all that I ask you, Margaret, is to be sure that you really want to know these people."

"I don't," said the girl seriously, "in the usual way."

"Then the question is whether you do in the unusual way. They will build a great deal upon you," said Mrs. Horn, realizing how much the Leightons must have built upon her, and how much out of proportion to her desert they must now dislike her; for she seemed to have had them on her mind from the time they came, and had always meant to recognize any reasonable claim they had upon her.

"It seems very odd, very sad," Margaret returned, "that you never can act unselfishly in society affairs. If I wished to go and see those girls just to do them a pleasure, and perhaps because if they're strange and lonely, I might do them good, even—it would be impossible."

"Quite," said her aunt. "Such a thing would be Quixotic. Society doesn't rest upon any such basis. It can't; it would go to pieces, if people acted from unselfish motives."

"Then it's a painted savage!" said the girl. "All its favors are really bargains. Its gifts are for gifts back again."

"Yes, that is true," said Mrs. Horn, with no more sense of wrong in the fact than the political economist has in the fact that wages are the measure of necessity and not of merit. "You get what you pay for. It's a matter of business." She satisfied herself with this formula which she

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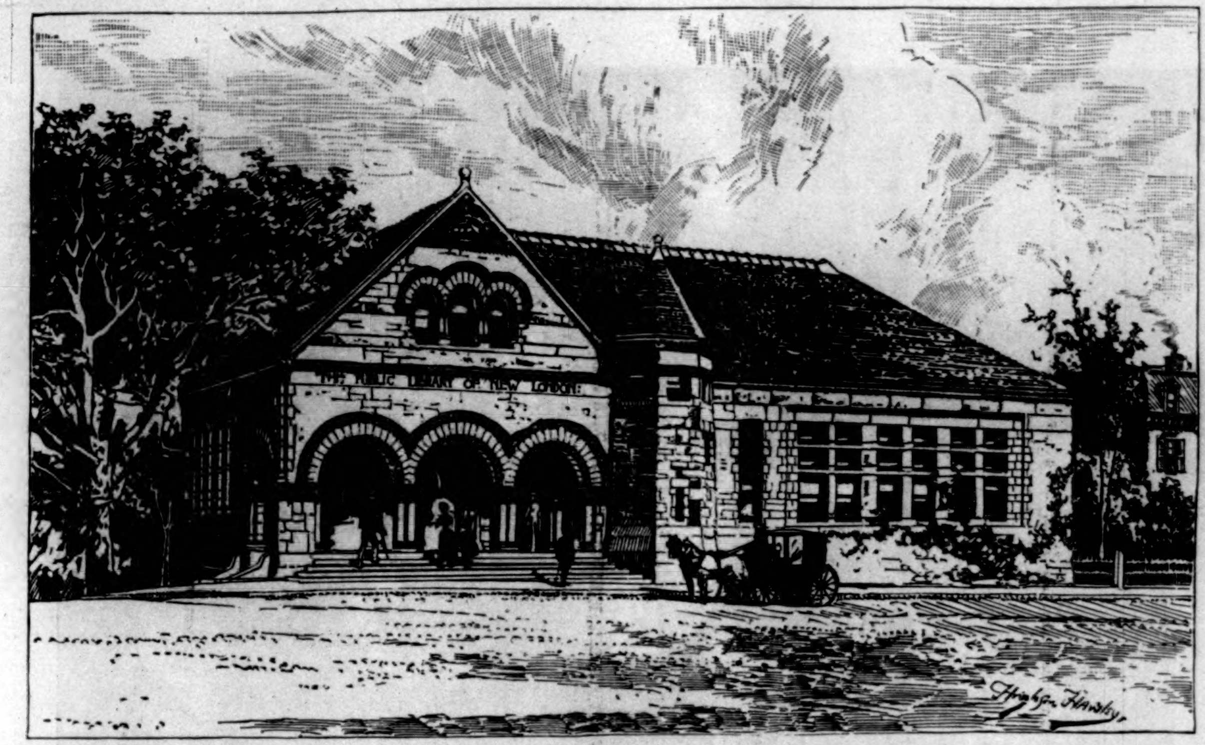
* Begun in Harper's Weekly No. 1683.


THE PUBLIC LIBRARY OF NEW LONDON

THE PUBLIC LIBRARY AT NEW LONDON, CONNECTICUT.

did not invent as fully as if it were a reason; but she did not dislike her niece's revolt against it. That was part of Margaret's originality, which pleased her aunt in proportion to her own conventionality; she was really a timid person, and she liked the show of courage which Margaret's magnanimity often reflected upon her. She had through her a repute with people who did not know her well, for intellectual and moral quantities; she was supposed to be literary and charitable; she almost had opinions and ideals, but really fell short of their possession. She thought that she set bounds to the girl's originality because she recognized them. Margaret understood this better than her aunt, and knew that she had consulted her about going to see the Dryfooses out of deference, and with no expectation of luminous instruction. She was used to being a law to herself, but she knew what she might and might not do, so that she was rather a by-law. She was the kind of girl that might have fancies for artists and poets, but might end by marrying a prosperous broker, and leavening a vast lump of moneyed and fashionable life, with her culture, generosity, and good-will. The intellectual interests were first with her, but she might be equal to sacrificing them; she had the best heart, but she might know how to harden it; if she was eccentric, her social orbit was defined; comets themselves traverse space on fixed lines. She was like every one else, a congeries of contradictions and inconsistencies, but obedient to the general expectation of what a girl of her position must and must not finally be. Provisionally, she was very much what she liked to be.

[TO BE CONTINUED.]

THE PUBLIC LIBRARY AT NEW LONDON.

THE massive and dignified railroad station on the "Shore Line," at New London, Connecticut, built from designs of the late Henry Hobson Richardson two or three years ago, may be said to have begun an architectural "revival" which is still going on in the pretty city by the Thames. One of its latest manifestations is the Public Library (to be finished next year) now constructing from the plans and under the supervision of Mr. Richardson's successors, Messrs. Shepley, Rutan, & Coolidge, of Boston. The creation of the library building is due to the trustees of the late Henry P. Haven, of New London, who in 1876 left his property in trust until 1890, one-third of its income and principal to be expended for charitable and benevolent purposes under the direction and according to the discretion of his trustees. It is not, however, to be directly associated with Mr. Haven's name, but when completed will be presented to the Public Library Association of the city. Every one interested will thus feel free to aid in enriching its contents. The architects, for their part, have been eminently successful in designing a structure worthy to be a storehouse of the best literature.

The site is a pleasant slope practically in the centre of the city, at the junction of two broad, elm-bowered streets, Huntington and State, the latter being the chief business thoroughfare, but bordered at this point—at its head, and near the quaint eighteenth-century Court-house—with handsome dwellings and gardens. The sloping ground gives opportunity for a large and convenient basement, dry, and well-lighted. From the front the building (40 by 90 feet) presents somewhat the appearance of one tall story with a high sloping roof, although in reality there are two stories, as may be seen by the gable, pierced with three arched windows, over which appears a carved stone tympanum bearing the arms of New London—a ship under full sail. It is fit that a city founded on granite should have a granite Library; but in this case the granite comes from Worcester, and has more of a pink tinge than the local stone. The trimmings of Kibbe sandstone will form an effective combination with the rock-face, random-jointed ashlar of granite, and the color effect will be further heightened by the use of Akron tile on the roof. The entrance porch, formed of three groined vaults, with wide arches opening on Huntington Street, and another arch on the State Street side, is especially commendable for its beauty and strength; and a picturesque pointed tower to the right of the porch, enclosing a staircase to the upper story, lends height and variety to the façade.

The interior arrangements are excellent. The Delivery-Room, entered from the porch, is nearly in the middle of the building, with a Magazine-Room at the rear, and on the left a Reading-Room lighted from three sides. It contains an elaborately carved stone fireplace, and will be panelled, both between the heavy beams of the ceiling and around the walls, to a height of thirteen feet, with quartered oak well rubbed, which forms the finish of all the lower rooms. To the right of the Delivery-Room are the Librarian's Office and the spacious Book-Room. The latter has an immediate capacity of 30,000 volumes, on the "stack" plan, bringing every book within easy reach of the arm, and the height of the stacks can be increased so as to accommodate 50,000. Every aisle between the stacks is flooded with light from the two sides of the room. The whole second story of the building is occupied by one large room, finished in fine Georgia pine, which will be the home of the New London County Historical Society. Mr. Shepley, the head of the firm of architects, is the son-in-law of Richardson, and Messrs. Rutan and Coolidge also practised under the leadership of that eminent man. While they have drawn inspiration from him, they also manifest solid originality and artistic power; for the New London Library is hardly surpassed in excellence and charm of design by any building of similar size and purpose in this country. GEORGE PARSONS LATHROP.

COAST PLANTER HAILING A NEW ORLEANS STEAMER.

THE Coast. Where is the Coast? It used to begin at the mouth of the Mississippi, extending right and left, up and down, and had no reference to salt-water. Coast is derived from an old French word brought to Louisiana by the first settlers in Law's time, and is as applicable to-day in France to the shores of a river as to the side of a hill. With American influences, stronger now than before the civil war, the Coast is being shorn of its vast proportions, and seems to designate more particularly the southern portions of the Father of Waters and its lower confluents.

In the time that has gone the Coast planter was a vastly more important personage than he is to-day. Possessed of a fruitful soil, and with numerous and well-disciplined slaves, the producer of cotton and sugar was a well-to-do man. There was more thrift among these planters, owing to their admixture of French blood, than is generally supposed. Everything—the necessaries of life—could be produced on their own plantations. The luxuries were purchasable in New Orleans. Before the war Paris sent its choicest wares to the New Orleans factor for distribution among the planters. In no part of the country was there then greater prosperity than on this Coast. In many respects life there had some resemblance to what is believed to have been the most pleasant of existences, that of the English country gentleman, only the somewhat haughty and exclusive manners of the Briton were tempered by the pleasanter ways of the Frenchman. There always was a handsome balance at the planter's factor's. The *crevasse* came now and then and washed away a big piece of a river frontage, but then there was always a surplus of virgin soil.

After the civil war the changes in the Coast plantations were marked. Cases of individual suffering were many, but within the last ten years there has been a steady advance, and matters are very much better than they were. The labor, under new conditions, has been improving, and to-day there are many Coast planters who are doing well. Plantations have been curtailed as to extent, with the advantage of a higher culture and a more economical one. Old creole ways are fast becoming as reminiscences of the past.

New Orleans, however, to the Coast is still "la grande ville," and thither the planter goes oftener on business than pleasure. The advent of the steamer to some of these isolated plantations is always an event. Where locomotion is difficult, save by means of the river, the steam-boats do all they can to be accommodating. They can well afford to stop when the planter signals, for when the crop is made, the captain of the boat is quite certain that he will carry that particular planter's bales of cotton to New Orleans.

The little party await then the coming stern-wheeler. The gentleman waves his handkerchief, while his wife is making her little one better acquainted with the old colored man who has carried the carpet-bag. Little missee hugs her doll, but is too intent on her travels to pay much heed to the advances of her colored friend.

THE LATE S. L. M. BARLOW.

SAMUEL LATHAM MITCHELL BARLOW, who died at his country home at Glen Cove, Long Island, on the 10th of this month, was one of the best known of New York lawyers. For nearly forty years he had been one of the leaders of the bar, and few law firms were better known than that in which he was the second partner—the firm of Shipman, Barlow, Laroque, & Choate.

Samuel Latham Mitchell Barlow was the eldest son of Samuel Bancroft Barlow, a physician of this city, and was born at Granville, Massachusetts, on the 5th of June, 1826. He was educated at the public schools of this city, and when sixteen years old, in 1842, began an apprenticeship in the law office of Willett & Greig, with a prospective pay of one dollar a week. Mr. Barlow used afterward to relate that when, after waiting for three months for that pay, he asked Mr. Greig for his wages, that gentleman seemed amazed and hurt.

"Wages, sir!" he exclaimed. "You do not receive wages here! You are in receipt of a salary, sir—a salary of $52 a year—payable semi-annually."

After an apprenticeship of seven years, young Barlow was admitted to the bar in 1849, when twenty-three years old. Soon afterward Mr. Greig died, and Barlow started out for himself. He soon had more business than he could attend to. From the very first his principle was to settle all differences privately out of court if possible, and he continued to practise this principle to the last.

In 1852 Mr. Barlow formed a partnership with George R. J. Bowdoin and Jeremiah Laroque, under the style of Bowdoin, Laroque, & Barlow. Mr. Bowdoin died in 1870, Mr. Laroque in 1868; Mr. Joseph Laroque entered the firm in 1870, and in 1873 ex-Judge Shipman became senior partner. In 1881 ex-Judge Choate became junior partner.

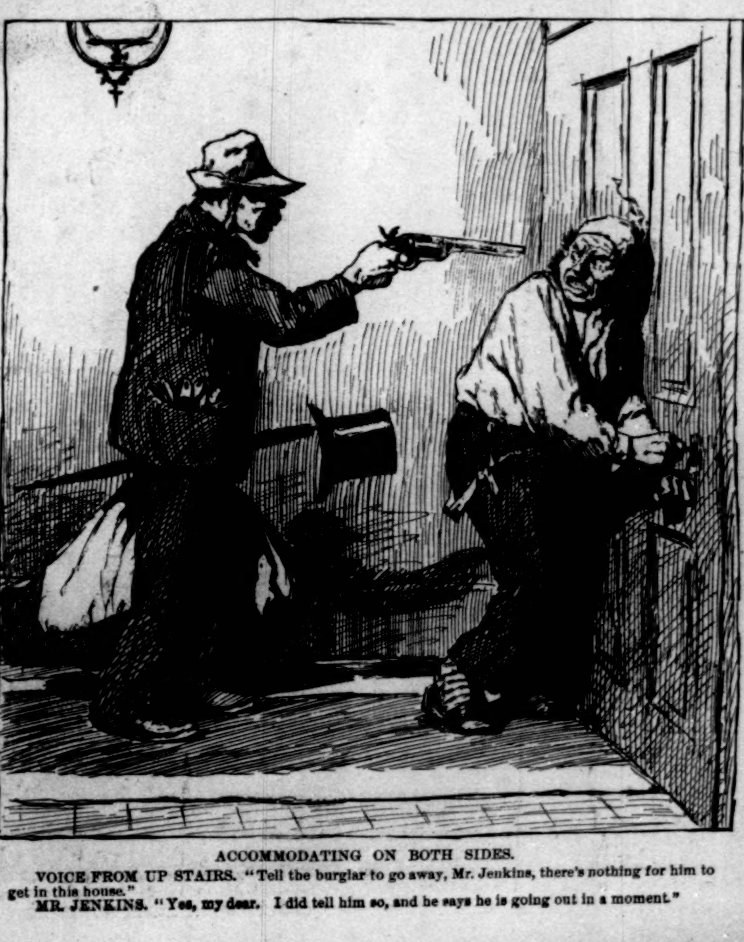
As a lawyer Mr. Barlow was widely known entirely apart from his firm. His private practice was large, and from it he made a fortune. His fees as manager of some Mexican claims are said to have been $200,000; in the Erie Railway litigation which ended in the dispossession of Mr. Gould, Mr. Barlow's fees are said to have been $250,000.

An instance of Mr. Barlow's methods was his separately inviting Commodore Vanderbilt and Mr. William H. Aspinwall, at loggerheads over the Pacific Mail and the Panama Railroad, to call upon him at the same time. They came, they saw, he conquered. A peace was made between them by which both companies were benefited.

In politics Mr. Barlow was a Democrat; he never held any office, however. He opposed the election of Lincoln, although in other respects he was a "war Democrat." His politics made no difference in his friendships, however, and it was to his Glen Cove house that Horace Greeley, his political opponent, fled in 1872 from the swarm of politicians that harassed him. Mr. Barlow belonged to the Union and the Manhattan clubs.

Mr. Barlow read Latin, French, and Spanish easily; he was an authority on whist, and furnished for the *American Cyclopædia* the article on that game. His library of Americana was surpassed only by the Brinley, Carter-Brown, and Lenox collections, and he so used it that he was able to help Henry Harrisse in making the latter's *Notes on Columbus* a work of great value to the historian. His collection of bric-à-brac and china was extensive, and his paintings, though comparatively few in number, were of more than average excellence. Among them was Vandyck's "Children of Charles I." and Titian's "Sleeping Venus." The latter is said to have come to him as a fee in a law case.

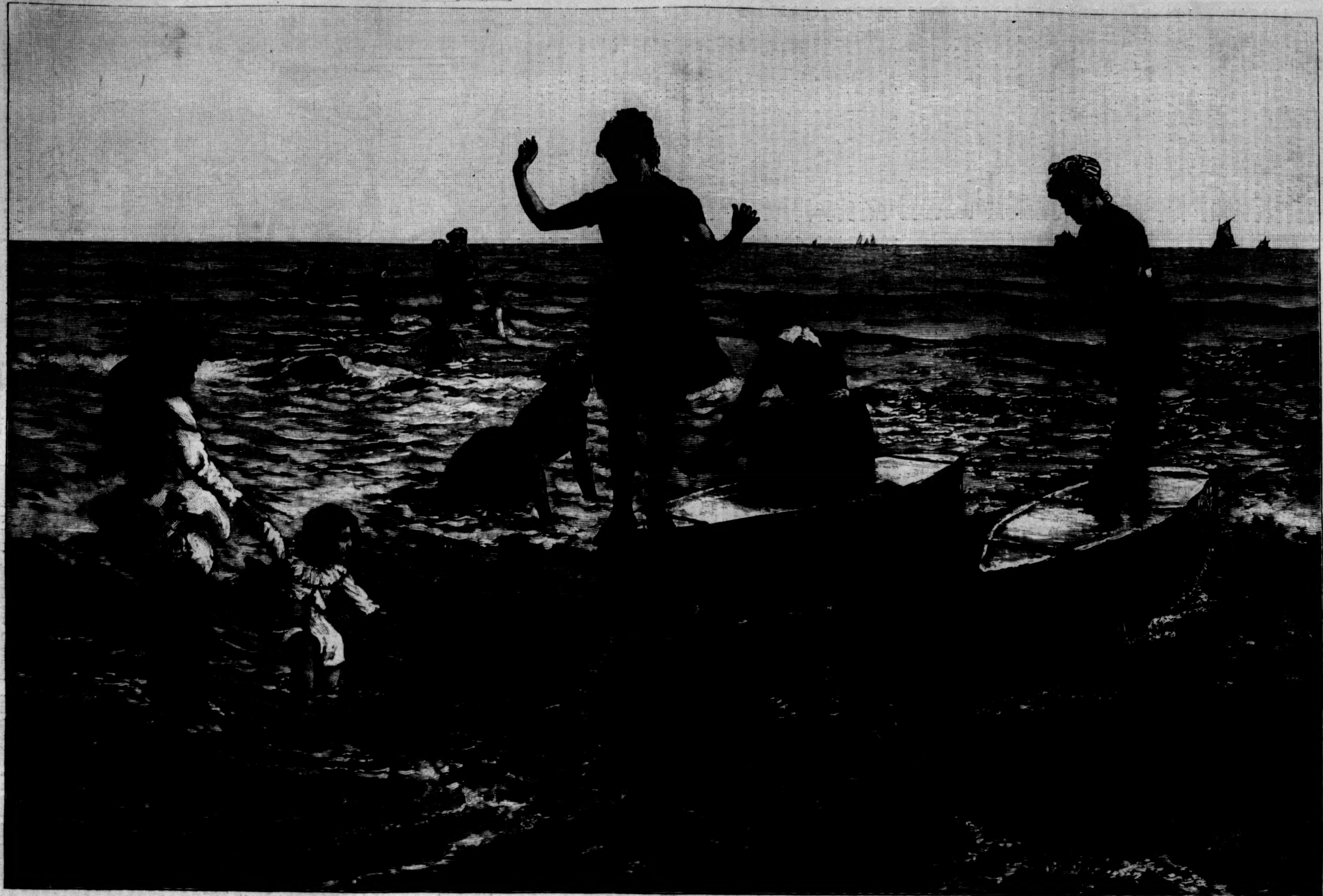
In 1852 Mr. Barlow married a daughter of Peter Townsend, a merchant of this city. Mrs. Barlow survives him, with one son, and two granddaughters, children of an only daughter who died some seven years ago.



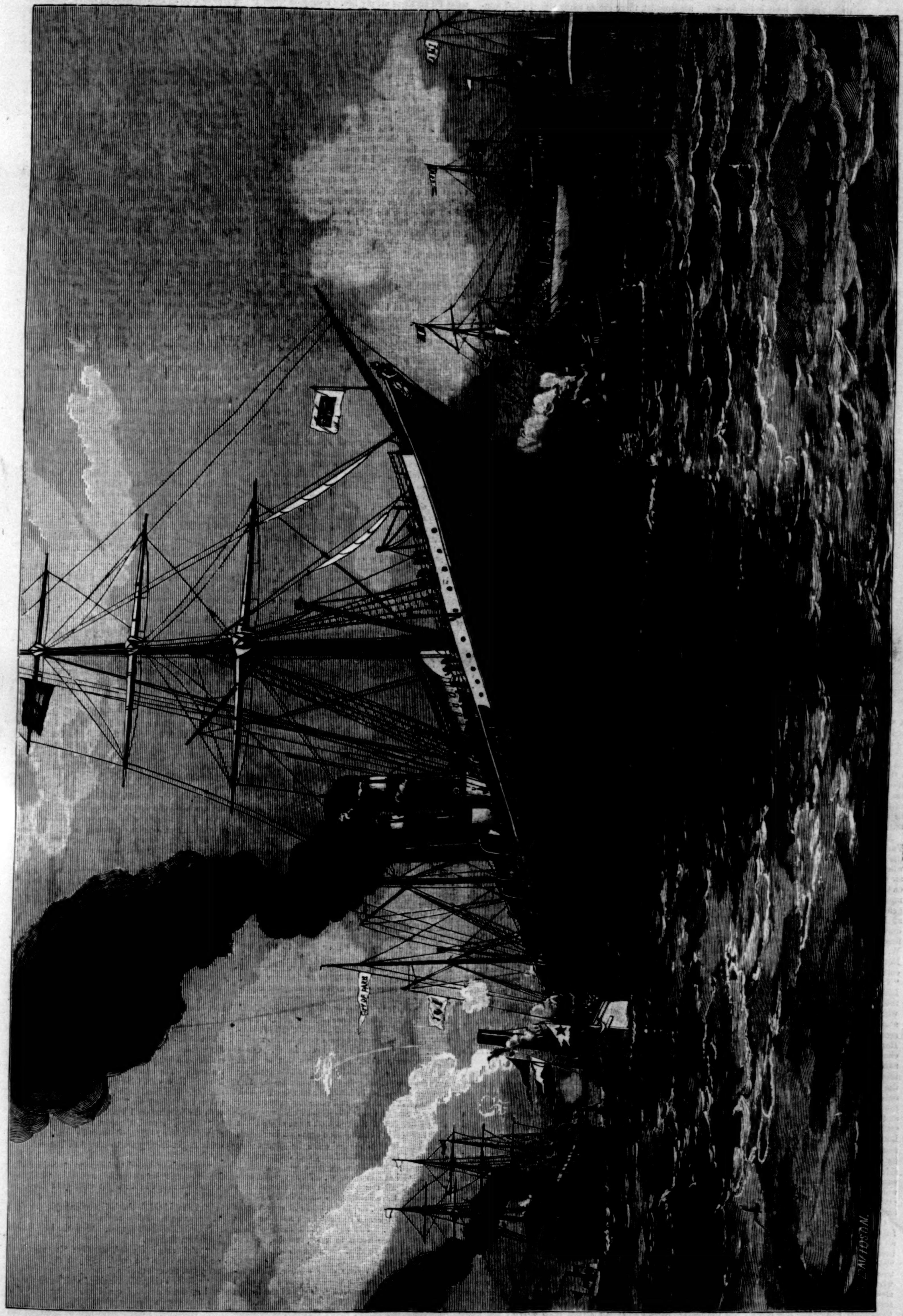
ACCOMMODATING ON BOTH SIDES.

VOICE FROM UP STAIRS. "Tell the burglar to go away, Mr. Jenkins, there's nothing for him to get in this house."

MR. JENKINS. "Yes, my dear. I did tell him so, and he says he is going out in a moment."



A GROUP OF SEA-NYMPHS.—Drawn by Otto H. Bacher.—[See Page 610.]



"STEAMER DAY" IN NEW YORK.—Drawn by J. O. Davidson.—[See Page 611.]

A FROLIC WITH THE SEA.

AMONG the blessings that rapid transit has brought in its train, not the least is the facility with which New York and other cities near the seaboard can empty their sweltering denizens upon the neighboring beaches, and give to each weary sufferer from toil and heat an opportunity to refresh his spirit and renew his strength by a plunge into the cool green sea. Sea-bathing has been a luxury familiar to certain classes since the days when the Romans forsook their elaborate thermæ within the walls of the capital to go down to Naples and there disport themselves among the placid waves of the Mediterranean, but only of late years has it been a luxury within the reach of many even of the poorest in our great cities. From the luxurious owner of a villa at Long Branch down to the toil-worn woman whom charity enables to take her sick baby for a week's stay at Coney Island, there are few who cannot find an opportunity for trying what a hand-to-hand frolic with old Neptune will do toward adding to their sum of health and happiness.

There is no greater leveller of humanity than the sea. Even the author of *Sartor Resartus* might almost have been satisfied could he have viewed his fellow-men in bathing dress. The millionaire looks no better than the clown, and all of beauty's devices are set at naught by the tempestuous waves. Persons and things appear so far as is possible *au naturel*. What a relief this is to the modern belle no one who has not suffered personally from the decrees of fashion can imagine. At one time the sojourners at Ocean Grove showed such a disposition to abuse the luxury of dispensing with elaborate toilettes and stiff collars that a rule was passed forbidding persons to wear their bathing dresses longer than one hour. The maids and matrons had found it so delightful to roam along the beach, gossip with their friends, and consume the latest novel in the easy undress of the bathing suit that only some great emergency in the social way would induce them to abandon it until late in the afternoon. The result was such a series of grotesque figures populating the beach and roaming about the streets that the authorities finally convinced themselves that it was not respectable or decent, and determined to take the matter in hand. Hence the decree that occasioned no small amount of lamentation among those who had been in the habit of preferring comfort to appearance.

One unfortunate feature in connection with our sea-side resorts is the little attention that is paid to the security of human life. The more popular and expensive watering-places have usually one man at least employed whose business it is to see that the unwary bather does not venture out too far, and to go after him if he exhibits any signs of distress. It is not possible, however, for this man to be always on hand, and thus we hear from all quarters sad stories of persons who have lost their lives simply for want of a warning word, or who might have been rescued had an expert swimmer been at hand in their moment of need. Within a few days a sad catastrophe took place at one of our most popular sea-side resorts simply because the man whose business it was to attend to such cases was asleep. It was not the regular hour for bathing, and he had gone away to secure a few hours' rest. Before he could be found, awakened, and made to comprehend the situation, there was no further need for his services. A life had been lost. Abroad, such a thing could scarcely have occurred. There the laws governing the keepers of bathing pavilions are much more stringent. In England it is not customary for the sexes to bathe together, and a strict watch is kept over those who go into the water.

Among the many charities for which New York is famous, one of the noblest and best is the establishment of so many sea-side homes where the poor may go and enjoy a week of fresh air and sea-bathing. At one of these institutions on Coney Island there are accommodations for 250 mothers with their infants, and in cases of emergency 300 can be entertained. There is another at Bath Beach, the books of which show that during last year there were 4457 children benefited. This is one of the charities in which Mrs. W. H. Vanderbilt specially interested herself. Nothing that money can do toward procuring comfort and well-being has been spared. In the "Vanderbilt Cottage," as it is called, at Coney Island, there is a large pleasant sitting-room for the mothers of the little folk, a doctor's office where medical advice can be had at any moment, a lawn supplied with merry-go-rounds, croquet sets, and every other kind of out-door games. Here the children of the great city come, exchanging the hot fetid atmosphere, the miserable surroundings of their wretched homes, for the broad sandy beach, the great wide ocean, and the comfort, and to them luxury, of a clean, well-ordered home. It is not surprising that when the end of the week comes there are many sad and regretful countenances among the group that start cityward. The running expenses of the Bath Beach home last year were $7448-54. The managers claim that the cost of each child during its week's stay is less than $2. When we consider the smallness of this sum and the number of wealthy and well-to-do people in our great city, it would seem as if such charities as these might be extended until every one of our poor little waifs and strays should have its week by the sea.

On page 608 our artist has given us a delightful sketch of a merry party of bathers. They are all of the gentler sex, and seem to be enjoying thoroughly their immunity from masculine supervision. The overturned row-boats furnish a vantage-ground, and mounted on them they can rest, whenever they have a fancy to do so, from their struggle with the waves. One has evidently found some sea treasure, which she proposes to examine thoroughly before she lets it go. Not the least part of the fun that may be had on the sea-shore is the collection and comparison of the many forms of animal life. Without being in the least a naturalist, there are so many strange and wonderful creatures, all of them apparently weak and harmless, tossed up by the tide, that one must be very unobservant not to take an interest in them, and to spend many an hour examining their marvellous peculiarities. The sea-beach is a great natural play-ground, not only for little folk, but for "children of a larger growth." Apart from the health and strength, the renewal of life's forces, the refreshment of nerves it stands so ready to give, it is a great teacher.

THE CONDUCTOR'S STORY.

I AM a travelling salesman for a large firm, and I have seen a great many queer things in my time; but the strangest I ever struck was the experience of a conductor that I used to ride with on one of the big Western lines. I had known him in a business way, as one might say, for years, and one day I saw his name honorably mentioned in the papers in connection with a big railroad accident, where he was instrumental in saving many lives. But after that I neither saw nor heard of him again for a long while, and he quite passed out of my mind. Business, however, happened to bring me East, and one day when I was travelling on a little branch railroad in New England—a regular one-horse affair—I was surprised to hear a voice I knew call for tickets. I looked round and saw Waring, and I was even more surprised to see him than I had been to hear him. When I had known him he had been a stout, burly fellow, with that self-satisfied and condescending manner which is one of the blessings that attend the lot of a conductor. But now he had lost his flesh; he looked disheartened, and had a timid way of demanding fares and giving information that really touched my feelings when I remembered the brisk hauteur that used to be his.

"Why, Waring, what brings you here?" I asked.

He gave a feeble grin. "Oh, I thought I'd come to the land of culture and rest awhile," he said.

"What's up?" I went on. "You've lost all your flesh. What's gone wrong? I hope it's nothing bad."

"Bad enough for me," he said. "Nobody else seems to think much of it."

He spoke so humbly I felt sorrier for him than ever.

"Why, tell me what the trouble is," I cried. "Maybe a friend can pull you through."

He smiled again—the same uncertain grin. "I don't care if I do," he said. "You won't be able to do anything, but I get uneasy if I don't tell it once in a while, and all my friends are tired of it. They say it's nothing. That's what you'll say when you've heard it. But I'll come over to-night, all the same, if you're going to stop at the end of the line."

That evening Waring came to the village inn where I was staying. To make things pleasant, I began to talk about the road he used to run on—tell him when I had been there last, and so on—but presently I saw that didn't suit at all. He grew uneasy, and in a moment more spoke up in a sharp, hurried way, as if he was at the same time anxious and afraid to plunge into a disagreeable subject.

"Perhaps you didn't know why I left," he said. "I was the conductor on the train in that big Hammersville accident."

"Why, no," I replied. "I had forgotten that, or I wouldn't have brought it up. Tell me about this road you're on now. Do they make it pretty comfortable for you?"

He didn't even look at me, but went on as if I hadn't spoken.

"There were a hundred and fifty people killed, you know. A great many of them were burnt to death. The company didn't blame me at all. No one did. A cloud-burst had torn down a trestle bridge just before we came along, and it was dark. The engineer couldn't see it, and over we went."

"That was terrible," said I; "but you certainly weren't to blame."

"That's what the company said," he repeated, "and what the papers said. I got to the bottom all safe, and the papers praised me for the way I worked to get the injured out of the ruins. They said I made 'heroic efforts.' But," he continued, slowly, "I was on the last car. They didn't seem to take that into account. I had no business to be on the last car. I told the company about it, but they didn't make anything of it either."

"Why should they?" asked I. "A conductor has to be on the last car sometimes. What's the harm of that?"

"I oughtn't to have done it," he answered, shaking his head. "I knew better. I never went to the end of the train except just when we were starting or when we were slowing up, but that evening I met an old friend there, and like a blamed fool I sat down and talked awhile, and before I could get forward we were over the edge."

"What difference could your getting forward make?" I cried, a little impatiently. "You couldn't have seen the trouble if the engineer hadn't. I tell you what, you've got a shock from the accident, and you've let your mind dwell on it till it's unhinged. You must turn your thoughts away, or you'll get into worse trouble."

He looked at me contemptuously, as any one might at a man who was pretending to lay down the law on a subject he knew nothing about.

"You don't understand," he said. "I'll tell you from the beginning. I never could make out myself why I had to suffer so for what was no fault of mine in the first place. But, you see, when once I got mixed up in it, it seemed as if I couldn't get out of the snarl. Well, you know the train you used to meet me on? I had been on that road and run that train for five years when I first met you, and I never expected but what I'd be there all my life. I suppose when I get through you won't see why I'm not there yet." He stopped a moment, sighed heavily, and then went on. "I wasn't a married man, but I had fixed myself as comfortably as a railroad man can. I was away from my place a good deal, of course, but I had all my traps there, and always called it home. It was in the town of Hunter. There was an old man I knew, and his wife, had a house there. They had more room than they wanted and less money, so they were glad to take in a quiet fellow like me. The engineer that always ran on my train was only a few doors off; Lawrence O'Brien his name was, but the boys all called him Larry. His mother lived with him, and a funnier little Irish woman you never set eyes on. She had a round little face, as wrinkled as an old apple, and eyes so sharp they seemed to cut you right in two, and she'd duck a courtesy to anybody that so much as looked her way. But for all her queer old-fashioned notions she was the smartest little body I ever came across, and full of her fun too, and I used often to stop as I went by and crack a joke with her. Larry didn't treat her well. He thought because he knew some things she didn't, he was the wise one and she was the fool. I've seen several other wiseacres make that same mistake before. He was a blundering, brutal fellow, for all he was clever at his work, and his canny little mother seemed to think she was made for nothing but to watch out for him and keep things straight without his knowing it. She just worshipped the ground he trod on. She'd trot round their rooms and work for him and wait on him at every turn, and he'd sit there and take it all, and maybe swear if everything wasn't just to his liking.

"Well, I'd been living there some time when one day Larry came home and told the old lady he was going to be married. The next morning she came to me with her apron to her eyes, and begged me to speak to Larry. She said the girl he was going to marry was a worthless hussy, and would bring him nothing but trouble. Of course it was none of my business to interfere with the fellow's concerns, but the old woman seemed so unhappy, I did say a few words to him. Much good it did! Afterward I heard his mother went down on her knees to him, and he got into a rage and struck her. Anyhow, before the month was out he had married the girl, and the little woman was running round waiting on them both.

"She never said a word more to Larry against his wife, not even when, before two years were out, the girl ran away with another man, leaving him with a baby on his hands. The old woman delighted in the baby; she cuddled it and cosseted it, and it grew into a fine boy. But Larry's temper was more savage than ever for the trouble he had been through, and he was very rough to the little fellow, and a perfect Turk to his poor mother. I began to fear he had taken to drinking, though he hid it well for fear of being turned off the road, and I never could make sure. His mother never complained, but I used to see the tears coming in her eyes when she looked at him, and she was all the time trying to coax him to dress up neat and go to church and take pride in his boy. But no matter what she said, it made no difference to him. At length it came to be open gossip that Larry drank, and that he beat his mother. That was a little too much, and I went round one afternoon to see if I couldn't frighten him by threatening to tell the company.

"When I got to the house there was a crowd about the gate, and when I asked what the matter was, they told me Larry had hurt the old woman. I pushed ahead into the house, and there, in a back room, was the little boy sobbing in the corner, and the grandmother lying on a bed, with two or three neighbors looking after her. She had been badly injured, and the end of it was she died that night. They all agreed the way it happened was that Larry had started to beat the child, and when she interfered had given her a blow which threw her on the sharp edge of the stove. But though there wasn't the least doubt this was the truth of it, yet—would you believe it?—when the officer came to take her testimony she stuck to it from first to last that Larry had never laid a finger to her. Her foot had slipped and she had fallen against the stove, she said, and she swore to it as calmly as if perjury was a pastime.

"'Sure, is it Larry do you think would be raisin' his hand agin his old mother? Niver a bit. 'Twas me own fault entirely, and the fault of me stumblin' feet. Larry has been a good boy to me always. I've no fault to find wid Larry. Come here, me son, an' let me old eyes rest on ye at the last,' and she looked at him as affectionately as if he were all a mother's heart could ask. She entirely succeeded in imposing on the officers of the law, but after they had gone she called Larry to her. She had sent the woman who was waiting on her out of the room on some errand, but as it happened I had taken a seat on a low bench behind the head of the bed while the officers were there, and both she and Larry had forgotten my presence. 'Come here, me poor boy,' she said, softly. 'I have to leave ye, an' me heart's sore thinkin' of all the trouble in store for ye when I'm gone. Sure I'll have to watch over ye wherever I am, Larry, an' the good Lord only knows where that 'll be. I've risked me sowl for your sake this day. But never think twice o' that. Only lay all me words to heart, me son, for I'm sick o' havin' ye deaf to me warnin's. Every time ye've gone wrong it's been because ye wouldn't listen to your poor mother. Like to-night now, ye know, ye wouldn't hear to me when I begged ye not to beat the boy, and then when he grew wild an' turned agin ye'—she dropped her voice and looked round furtively—'ye know what happened then. It's better me nor him, anyhow, an' I'm not seekin' to blame ye. I forgive ye freely for all, an' may Heaven forgive ye as free as I do? But remember, Larry'—the old woman suddenly raised herself on her arm and looked at him with intent yet glazing eyes—'I'll be doin' the best I can to keep ye out o' trouble yet. I'll be watchin' after ye all the time from beyand, me son, and don't ye go to harden your heart agin your old mother, but open your ears to me.' Her voice rose shriller and shriller, till it was almost a shriek. 'Have heed to what I say! Listen to me, then, Larry! Listen to me!'

"Suddenly she sank back unconscious. The neighbors hurried in, and everything possible was done to revive her, but in vain, and before an hour was over she was dead. Larry seemed entirely dazed, and scarcely spoke. Nothing could be done to him, of course, for his mother had sworn so stoutly that he had no hand in her fall that it was impossible to discredit her testimony, especially as all that could be brought forward against it was the sobbing, incoherent story of the child, and the disconnected talk of the neighborhood. I don't know—I might have gone up then and told what I had overheard; but, after all, it amounted to nothing, and besides, if I must tell the truth, I don't think I could have had the heart to go against the old woman's will. At any rate, the end of it was that the coroner's jury brought in a verdict of accidental death, and Larry kept his place on the road.

"But he was greatly changed. He had a nervous, anxious look, like a man who has a weight on his mind; and no wonder, though I think he never suspected that I or any one else doubted the accidental nature of the old woman's death. He came up one day as I was going in my gate and began to talk to me, a thing he had never done before.

"'I'm a changed man, Mr. Waring,' he began. 'I can't forget my poor mother, rest her soul! I'm always uneasy, thinkin' what she may have meant by her partin' words. You won't have heard her; but she was talkin'—about warnin's an' such like. What warnin's could she give me from heaven? The dead never come back to this world, I've been told. The priest himself says she can't come back; then what can she have meant by me bein' deaf to her? Maybe I'd ha' done better to listen to her while she was alive; I know I didn't mind her then as I should; but what can she have to say to me now? That's what I'd like to know, Mr. Waring.'

"'Indeed, I can't imagine her ever having anything more to do with you,' cried I, turning off abruptly.

"But that night I kept thinking of the old woman; my mind misgave me for what I had done, and I couldn't get to sleep till I had settled with myself that I would speak to the boy decently the next day. But I had no chance to do so before we started out. We were going through the mountains, and it wasn't more than half an hour after we left, while I was taking up tickets in the smoking car and the train was rushing along a down grade, that I heard the clang of the bell to stop the car. I jumped as if I was shot, and was on the cab in less than a moment. There stood Larry, with the bell ringing like mad over his head, and he never lifting a hand to signal down brakes. I leaned over him and pulled the whistle for an instant stop, and before we had gone two hundred feet further the train had come to a stand-still. The track ran along the mountain-side. On one hand the rocks rose above it, and on the other was a precipice, and then ahead of us, not more than fifty feet off, was a big bowlder. We should all have been over the precipice, and probably not a soul left alive, if we had gone into that rock at the speed we were making. Of course there was a tremendous commotion among the passengers, with my rushing forward so, and the whistling and the sudden stop; and when they came flocking out, and saw what we had escaped, I never knew a set of people more overcome. I am free to say my own nerves were a good deal shaken, and it was hard for me to get my senses together enough to give the necessary orders. We backed to the last station, and from there sent for workmen to remove the obstruction. The rock had to be blown up, it was so big. It must have been loosened from the overhanging mass and fallen since the passing of the last train.

"After I began to get cooled down, there were three things that puzzled me. One was, who rang the bell? And another was, what did they ring it for? No one on the train could have known about the bowlder, and if we didn't stop for that, what did we stop for? I went all through the car inquiring who gave the alarm, and not a soul could I get to acknowledge it. More than that, in each car the passengers declared in a body that no one there had touched the cord. The other thing that puzzled me was Larry. How came he to stand there, without stirring, when it was his business to obey the signal and stop the train? When I had got through with the passengers I went forward to him.

"'Larry,' I said, sharply, 'why were you so slow just now? The whole train and every one on it might have gone to kingdom come for all you.'

"'Sure, how was I to know to stop the train, Mr. Waring?' he answered, sullenly; 'the rock wasn't so much as in sight when you blew the whistle.'

"'I should think the bell was enough,' I cried; 'I never heard such a racket.'

"Larry's voice dropped. 'Did the bell ring?' he asked, sharply.

"'Bell ring!' I cried, angrily; 'it rang loud enough to raise the dead. Do you mean to pretend you never heard it?'

"'Never a ring, Mr. Waring,' whispered Larry; and at the moment I could not understand why his face grew suddenly white.

"Altogether I could make neither head nor tail of the whole performance; and the more I thought of it the less I liked it. I was so uncomfortable that when I overheard some of the passengers talking about getting up a little testimonial for the conductor who had saved them by his 'promptness and devotion,' I actually stepped forward and begged them to do nothing of the sort. The whole affair made me shiver, and I wanted to have nothing more to do with it.

"I could not forget it, though; and I never passed over that part of the road without looking ahead to see whether there was any new obstruction on the tracks. But there never was. Perhaps it was Larry that kept it so in my mind, for he had got a way of peering about when he was on his engine and starting at every little sound that was enough to upset any one.

"'I wish to goodness you'd quit looking at that bell!' I cried one day, entirely out of temper. I had stepped out on the cab to speak to him, and I truly believe he started and looked up at the bell half a dozen times in the two minutes I was there. 'What's the good of staring at it all the time? You'll hear it fast enough when it rings.'

"'Are ye sure o' that, Mr. Waring?' he said, in a low voice.

"I was just about to ask him what he meant, when to my horror I saw the big bell vibrate for a second and then rock back and forth, giving out a discordant clamor that rose loud above the noises of the train. Larry never looked up, but went on opening and shutting his draughts and valves with his eyes sunk as if ashamed. It actually seemed as though he could not hear the din that shook the air around us. I bent forward to him.

"Larry,' I cried, 'don't you hear the signal? For God's sake stop the train.'

"He looked first at me, and then slowly raised his eyes to the clanging bell. The minute he saw it he turned deadly white, and was seized with such a fit of trembling that he could not grasp the rope before him, though he raised his hand and clutched at it. For the second time I leaned forward and pulled the whistle for down brakes. We had been going at full speed round a curve which skirted a low hill, and as we came to a stop I looked across the top of the hill and saw rising from the other side a thin column of dark smoke. There was no doubt of what it was. It was the smoke from another train, and from the swiftness with which it changed its position it was evidently rushing upon us at full speed. Larry was trembling so that he was utterly unmanned, and I, with the help of the fireman, gave the necessary signals and reversed the engine. In a moment more, with a heavy jar, the train began to move sluggishly backward. Slowly she gathered speed, and then went faster and faster with each second until, just as I felt the floor fairly trembling beneath my feet, the other train rushed round the curve and pursued us like a crazy demon. Her engineer saw us, and I heard him whistle for the brakes, but it was impossible to stop her instantly, and there was a moment when there was not more than twenty feet between her smoke-stack and our own. Then she began to slow down, and I relaxed our speed. In a few moments more we had both come to rest within a short distance of each other, and the other conductor jumped from his car and came forward to meet me. All this time I was greatly shocked by the conduct of Larry, who throughout had been cowering in a corner and staring at me. As the train slowed up, with a hopeless gesture he flung himself down on the floor and burst into tears.

"'Oh, Mr. Waring,' he moaned, 'why didn't I hear the bell? Why didn't I hear it?'

"I was really sorry for him, but I could not wait to speak to him. I jumped down and ran to meet the other conductor. It seemed that he had been behind time. It was his duty to wait; but when he had heard of a trifling delay to our train he had concluded there would be no danger in his trying to make the next station before our arrival. It was in the endeavor to do this that he was plunging ahead at such a frantic rate, and of course endangering the lives of all on board in doing so. You will understand that we told no more of this than we could help to the passengers, who crowded round us from both sides, but they must have suspected what the matter was. When they asked me how I came to reverse my engine so rapidly, before the train was in sight, I answered shortly that I saw the smoke from the other side of the hill. Nothing on earth would have tempted me to tell another soul that it was because of the warning bell, and I would no more have gone through the cars to ask who pulled the cord than I would have bitten my tongue out. It would have been a fool's errand: I knew well enough beforehand what they would all say.

"Well, we were all safe that time, and when the company heard of the affair I was highly praised; but it gave me a shock I couldn't get over. And instead of the memory dying out, it preyed on my mind more and more. Our running into the danger was simple enough; it was the fault of the other conductor. But how came we to escape it? Who rang the bell? I couldn't keep these two questions out of my head. Whenever I reasoned about it I made out there must have been some accidental cause that set the bell swinging, but the trouble was that when I didn't reason about it I thought something else. I knew well enough what Larry believed, though he never opened his lips; Larry thought it was his mother gave the warning, and he couldn't hear it because there was a curse on him. I really couldn't help pitying the man: he grew thinner and thinner, and the least sound—even a quick word—would set him to trembling. He was on the watch perpetually, and got a way of putting his hand up to his ear when he thought no one was looking at him. He used to hang around and try to get me to talk to him, and at last I got so I used to go into the engine cab whenever I got a chance, and chat with him a few moments. It quieted him to have me there, perhaps because he knew I knew what he was thinking. But he seemed to have a horror of any one else suspecting it, and he grew very irritable with the fireman who had been in the cab when I stopped the train, and who took to teasing him with questions about the bell, just because he saw they annoyed him. Larry's savage temper broke out again and again under this provocation, and at last, in return, the other man got into a very ugly frame of mind. I always supposed it was through him that some hint of Larry's strange conduct at the time of the threatened collision got to the ears of the company, for they had him up on a complaint that he had grown deaf, and was no longer fit to be in charge of an engine. But when they tested his hearing it was as keen as could be, and nothing seemed to be out of order with him, though any one could tell he wasn't the man he used to be. But since there was no practical fault to be found, he was reinstated, and I was able just then to say a word to one of the bosses that led to his having a new fireman. This was a young fellow, scarcely more than a boy, who had just come on the road, and couldn't possibly know anything of Larry's trouble, so that I hoped he would get quieted again and forget all about it. You may ask why, if I felt as I did about him, I made no effort to get him turned off. I wish to Heaven I had, if it was only for my own sake; but I just ask you now, how was I to know what the end would be? And what kind of a story had I to tell the company? A lot of crazy yarns about what I fancied and what I feared, and never a solid fact among 'em. The only sure thing was that we had twice escaped a frightful accident by a warning given by Heaven knows who, and what was that to complain of? I used to worry over it night after night, till I couldn't sleep; but as sure as I made up my mind to go to the company the next morning with a complaint of Larry, just so sure would his old mother's face come up before me as clear as the day she died, with the look it had on it when she called to him at the last, and I could no more bear to go against the poor old creature and ruin her boy than I could have struck her if she stood before me—and ruined he would have been if the company had turned him off, for he was in a state to stand nothing.

"At any rate I left it alone, but you may know that I was anxious and uneasy every time Larry was running my train. I got up all sorts of pretexts for staying in the baggage-car and on the tender, and I always took up the fares from the rear cars as we were leaving a place and before we got full steam on, so as to be near the engine in case of danger. And yet—would you believe it—when several months passed over without an accident I began to get careless. And one night when I happened on an old friend in the last car, and he began to talk about old times, I was such a blind fool that I stood there chattering with him for ten minutes—maybe more. It was a stormy night; the wind was blowing like mad, so that all outside noises were deadened, and the first I knew was my friend saying:

"'Can that be the bell ringing? What's up?'

"I jumped up and dashed ahead like a crazy man, without waiting to listen. I could see the people all turning round in their seats and staring as I burst open the doors and rushed through the cars. Each time I leaped across a platform I heard the clanging of the bell above the noises of the storm, and as I crossed the last platform I saw the cab before me. What I saw brought my heart to my mouth. The boy was on the floor, with Larry's hand at his throat, and the man's face was so wild with anger that for a second I forgot the dreadful bell above them. Then I jumped forward, but as my feet struck the floor of the cab it gave a great lurch and plunged downward, and I was thrown far out into the empty air. When I came to myself I was hanging among the branches of a tree, while from the blackness below me came a noise of shrieks and groans. For a moment I hung motionless, then I roused myself and clambered along the branches to the trunk, and so down. The ground was wet and miry, and I felt bruised and sick, but I made my way as best I could toward the sounds, and as I neared them a light sprang up. Some wood-work had caught fire from an overturned stove, and by the glare I saw in the ravine, which still lay below me, a dozen cars piled one upon another, with some human beings running back and forth beside them, and others writhing in the ruins, unable to extricate themselves. It was a sight to make a man forget his own hurts, and I hurried down to do what I could. You needn't be uneasy; I'm not going to tell you any more than I can help; I don't like to talk of it any too well myself. I and the other men who were free worked with all our might, and we must have got more than a hundred people out of the ruins, but the rest perished before we could save them. Larry was never found, but the young fireman was drawn from under the wreck of the engine. He was badly hurt, and only lived an hour, but he kept calling for me, till at last they found me and brought me to him. I knew I should be working every instant, yet when I came near him he grasped my hand so tight I hadn't the heart to tear it away.

"'Oh, Mr. Waring,' he moaned, 'it wasn't my fault. Say you know it wasn't my fault. I can't die easy till you tell me I wasn't to blame. I did all I could, indeed I did. I heard the bell, and when Larry took no notice, I made bold to ask him didn't he hear it. And, oh, Mr. Waring, the look he give me! He seemed to be crazy mad at me for speaking. But I knew something awful must be the matter, and so I asked him again. And he thought I was only mocking him, for he raised his fist, and came at me swearing. He said I'd heard some cursed story about him, but if I dared to speak again— I was so frightened I near jumped backward off the cab. And then the bell rang louder than ever, and I couldn't jump for thinking of all the people behind, and I crept up and caught his arm, and pointed up at the bell; and when he saw me do that he seemed to go out of his head with rage, and he jumped at me, and caught me round the throat, and threw me down, and just as my breath was gone I felt the car give way beneath us. Oh, Mr. Waring, say you know it wasn't my fault. I can't rest till you tell me it wasn't my fault.'

"I soothed the poor boy, for who could blame him? He had thrown away the chance of saving himself in trying to save the fellow-beings who had gone so swiftly to destruction. I told him that so far from deserving blame he had acted nobly, and he was pacified. They told me afterward that he died quietly, murmuring over my words of praise. But what could I say to myself? That poor lad had lost his life in trying to avert from others an unknown danger. But I, who had foreseen and dreaded it for long, had doomed more than a hundred souls to death for the sake of a few moments' idle chatter."

The conductor's face, which had been growing whiter and whiter as he went on, had now become of an utter pallor. "If I had done my duty, those people would all have been alive now. The men would have gone back to their wives, the old people would have been safe in their homes, the mother and the children—that's the worst of all—would have been laughing and playing together now. I think of it all day, and at night a crowd of them come round my bed and ask me why I took their sweet lives away. I can't stand it. Some day I won't be able to endure it any longer, and then you'll hear I'm dead."

Suddenly he rose and held out his hand to me. "Good-night," he said. "I see you are getting ready to reason with me. It's no use; there's no reasoning can make any difference to me, because I know the *truth*. Good-night; good-by."

He had left the room before I could stop him, and the next morning when I looked for him he was not to be found. But I was so impressed by his pitiful condition that when I returned to the West I immediately set on foot a series of inquiries, hoping to find some flaw in his story which would enable me to prove to him that he had taken a distorted view of the facts. I was able, however, to discover nothing which could offer a rational explanation of his strange experiences. There could be no question that he was right as to the main points of his story. The train he ran on had twice, owing to his intervention, been stopped on the eve of a great accident; the third time it had, as he said, thundered ahead to destruction. The man who had called him to the injured fireman testified to the entire correctness of his account of that scene and to the strange words of the dying boy. All that he had told me of the old Irish woman and her son was also abundantly confirmed by inquiry in the neighborhood. In truth, the whole mystery of the bell grew only more and more incomprehensible as I investigated it. The further I searched into the matter the more heavily it weighed upon my mind; and I must confess that it was almost with a sensation of relief—even more for his sake than my own—that before a month was out I heard of Waring's sudden death.

Zoe Dana Underhill.

STEAMER DAY.

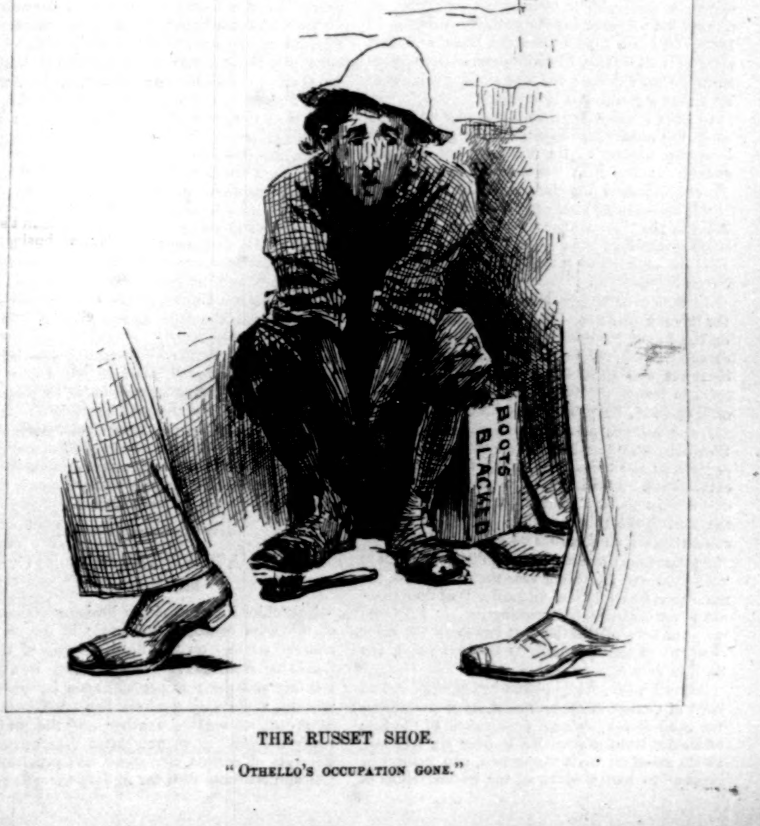
Few, even of New-Yorkers, realize how many communities weekly depart from the metropolis, each bound together by inexorable limits for a week at least, and each under the absolute government of one man—a government as despotic, at least in possibility, as that of an African chief. For on an ocean steamer the captain is the embodiment of law, and from his individual decision there is no immediate appeal. These communities are of no mean size either, for a thousand souls or more may be on a single one of the monster "greyhounds of the sea." For good or ill, for a smooth or perilous passage to the Old World, they leave in fleets on Wednesdays and Saturdays, and there is no chance of secession until the passage is finished.

Yet even this, striking as the thought is, does not give the greatest stress to the emotion that is apt to overpower those who "go down to the sea in ships," as well as those they leave behind. It is the sense of parting that is uppermost, and the decks and palatial saloons of the great passenger-carriers are filled with pictures, each one worthy an artist's deftest work. The general scene is familiar enough to the public, at least through the medium of oft-repeated description, but there are particulars well worthy of careful attention.

First, perhaps, is the military precision with which details are carried out. In all the confusion apparent to the landsman's eye there is nothing that is suffered to interfere with the exact performance of every duty, exactly on time, by every man and officer of the great crew. The decks are cleared as if by magic, at the sound of the bell, of the crowd of visitors, and the crowd of passengers alone remain. Every man is at his post. The great wagons bringing the European mails from the Post-office come thundering down the dock, the mails are taken aboard, the gang-planks drawn in, and on schedule time the steamer starts. Tides wait for no man, and so closely are all the conditions of the ocean passage studied that the tide is made to serve its utmost purpose in facilitating the departure of the ship.

Next in interest is the magnitude of the preparations necessary for so important a matter as the conveying of a thousand persons across the seas, and their maintenance in comfort for the time of the passage. The ship itself has cost a million or a million and a half, the service is maintained at a cost of thousands of dollars daily, and the luxury that is provided for the first-cabin passengers is on a par with that found in first-class hotels. Perhaps the easiest way to illustrate this is to take a few figures from the steward's list of provisions laid in for a single trip. Before the ship starts there have been put on board (among many other things) about seven tons of beef, a little of which is corned, two tons and a half of mutton, a ton of fresh fish, 850 pounds of lamb, 350 of veal, an equal weight of pork, 11,500 eggs, 15 tons of potatoes, five or six hundred fowls—chickens, ducks, turkeys, and geese—200 brace of grouse, 30 crates of vegetables, 1000 quarts of milk, 1200 pounds of coffee, 650 of tea, 750 of sugar, 1500 of cheese, a ton of butter, over two tons of ham and bacon, and some 15,000 or 20,000 bottles of wine, ale, and the like.

Last, but not least, to the eye at any rate, is the beautiful picture on the bay. Clumsy and unmanageable as the monster ships seem while half a dozen tugs are busy with each one, dragging it slowly from its berth in the docks to mid-stream, they take on a majesty that must be seen



THE RUSSET SHOE.

"Othello's occupation gone."